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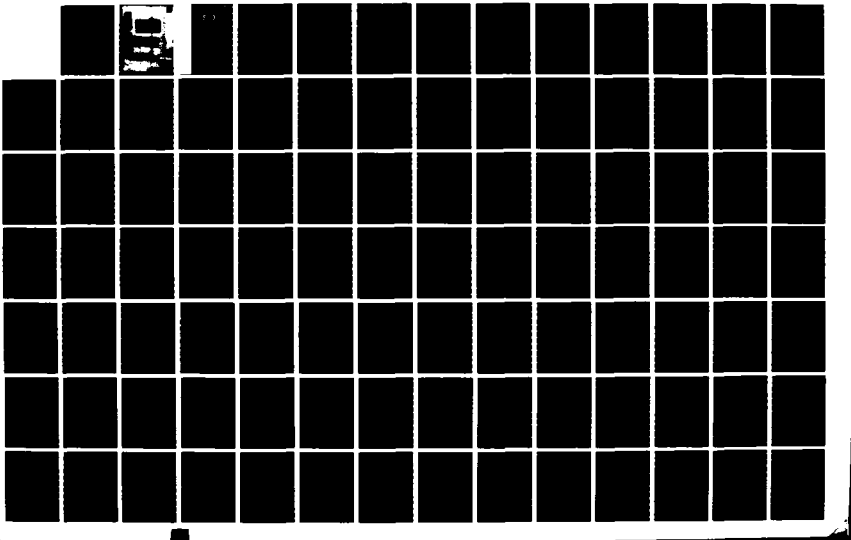

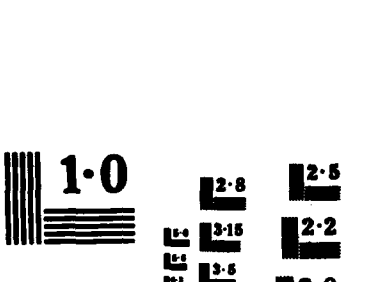
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USAFE ANNEX TO
USAF FUNCTIONAL AREA REQUIREMENT

20 AUGUST 1982

SOFTECH

THE SOFTWARE TECHNOLOGY COMPANY

USAFE ANNEX TO USAF FUNCTIONAL AREA REQUIREMENT

20 AUGUST 1982

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ABSTRACT

This Functional Area Requirement (FAR) Annex describes HQ USAFE and TFW readiness information requirements. The document stresses HQ USAFE and Wing decisions and the readiness information required to support the decisions. Major HQ USAFE and Wing activities are presented to provide context for the information requirements. Operations and logistics functional areas are stressed at HQ USAFE. Wing information concentrates on operations, maintenance, and combat support.

This document presents information to be used by system designers, analysts, and Air Force personnel. It contains twelve basic modules that can be expanded and modified.

Key terms: readiness, readiness measurement information, decision support information, tasking, employment, tactical, tactical resource, functional area requirement, information requirement.

See also AFIRMS Functional Area Requirement, 1031-2-5, Contract MDA-903-76-C-0296, SofTech, Inc. 14 March 1980.

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ACKNOWLEDGEMENTS

This statement of readiness measurement information requirements for USAFE is the result of an analysis of information gathered during visits to USAFE in the Fall of 1981 and Spring of 1982. The analysis draws heavily on the expertise of individuals at HQ USAFE, 36th TFW, 52nd TFW, AAFCE, 4ATAF, and ATOC Sembach. The AFIRMS staff wishes to thank all USAFE and NATO individuals who granted us the time for interviews, presented briefings, and allowed us to observe the operation of their functional areas. We appreciate the time, concern and hospitality extended to us. Any errors of fact or interpretation are the responsibility of the authors.

EXECUTIVE SUMMARY

This Functional Area Requirement (FAR) Annex presents readiness measurement information requirements for USAFE Headquarters and Tactical Fighter Wings (TFWs). It expands on information previously obtained in CONUS and documented in the AFIRMS Functional Area Requirement, 14 March 1980. This Annex focuses on readiness to employ resources from TFWs in the NATO Central Region.

USAFE TFW tasking and resources are viewed from two perspectives in this document: peace and crises. These main divisions are compatible with the structure of the CONUS FAR. Two levels of command are addressed under peace and crises:. HQ USAFE and Wing.

Three major viewpoints are presented in this Annex: operations, logistics, and support. Operations decisions deal with tasking and selecting units to respond to tasking. Logistics concentrates on provisioning and sustaining units. Support describes resource management and survivability concerns.

Readiness, as explained in the concept background, is the capability of a unit to perform specific tasking, taking into account available resources. The tasking-based readiness concept purports that tasking is the yardstick against which to measure readiness, rather than resource inventories and skill quotas. The measurement should express the ability of units to perform the tasking in a work or product measure such as a sortie.

Among all functional areas presented in this Annex, the dominant readiness information requirement shared by Headquarters and TFWs is the number of sorties that can be generated and flown in response to a tasking with the resources currently available. The second major information requirement is the duration that a unit can sustain operations and respond to tasking with currently available resources.

Commanders, deputies, and assistants at Major Command and Wing levels have the most critical need for readiness information to support decisions. Within functional areas, Operations and Maintenance require readiness information to support their commanders. Requirements for ancillary information about resources exist at the base, particularly information concerning sustenance and survival in USAFE.

Priority resources at the TFW are alert aircraft, mission ready aircraft, aircrews, maintenance personnel, munitions and loaders, POL, and aerospace ground equipment. Air Force personnel advised that these resources are the main sources for readiness measurement information and data collection. Information use and priorities at different command levels should vary among Air Force functional areas. However, good information about these main resources is preferable to diluted information about numerous resources.

USAFE personnel recommended that Wing readiness information requirements be addressed before proceeding to Major Command because the accurate sources of data are at the Wing. When the Wing readiness information is integrated, some form of that integrated valid information is required at Major Command.

An integrated expression of unit readiness to perform tasking is needed in USAFE. USAFE's proximity to the threat places priority on unit preparation for combat employment. In daily planning and training for combat missions, tasking and resource decisions require better, more accurate readiness information. USAFE personnel work within a dual command structure and a different physical environment than CONUS TFWs. These factors complicate their decision making. Readiness measurement information is required that facilitates understanding among diverse forces, expedites communication between command levels, and expresses capability to perform tasking.

Section 1

INTRODUCTION

1.1 Background

The Air Force Integrated Readiness Measurement System (AFIRMS) program was initiated in 1978. The objective of the requirements analysis phase has been to learn and validate readiness information required by major functional areas in the Air Force. Information requirements have been obtained from Military Airlift Command (MAC), Strategic Air Command (SAC), Tactical Air Command (TAC), Tactical Air Forces (TAF), and Air Force Logistics Command (AFLC). Air Force personnel at Wings, Major Command (MAJCOM) Headquarters, Numbered Air Forces (NAFs), and HQ USAF have stated and submitted their readiness information requirements. The common requirement among Air Force functional areas is to be able to measure readiness of their resources to respond to tasking in peace and in crises.

The breadth and depth of this requirement have guided the analytical approach, the functional areas analyzed, and the current scope of the analysis. TAC was selected as the initial MAJCOM to study in depth. A Functional Area Requirement (FAR), published in March, 1980, presented a set of TAC readiness information requirements. This initial document concentrates on the mobilization and deployment of TAC units. It also addresses the readiness information required for planning, programming, and training decisions at Tactical Fighter Wing (TFW), HQ TAC, NAF, and HQ USAF levels.

This Annex expands analysis to include TAF at HQ USAFE and USAFE TFWs. Geographical differences, NATO command structure, CONUS and host nation dependencies, and proximity to threat warrant a distinct USAFE FAR Annex.

1.2 AFIRMS Concepts

1.2.1 Integrated Readiness

Throughout the analysis readiness information requirements have reflected what decision makers need to know to commit resources to tasking. Decisions occurring at various command levels require statements of unit resource capability that communicate among committed functional areas. Integration, as used in the AFIRMS analysis, indicates that resources within a training or fighting unit must be thought of and assessed as a unit in order to accurately convey readiness.

Resources assessed in isolation from the unit do not reflect the readiness of the unit. Resources viewed as distinct, quantified inventory having qualified attributes, such as condition and location, are removed from the notion of integrated readiness. They can be reported as overages or shortfalls against a standard quota; however, an integrated readiness measurement is not the result.

1.2.2 Tasking-Based Readiness Measurement

The AFIRMS concept of readiness is based on the premise that units are tasked, not isolated resources. The unit structure called for reflects the best set of resources that can respond to a task. The readiness or capability of a unit depends on what the unit is asked to do or what it is committed to do. The clear requirement exists for a statement or measure of unit readiness to perform its tasking. The AFIRMS concept views tasking, whether constant or variable, as necessary to accurately measure unit capability; thus, tasking-based readiness.

1.3 USAFE Environment

The readiness information requirements documented in this Annex support decisions concerning offensive or defensive tactical fighter unit capability. The missions to fight in place to support NATO and to deploy for special tasking and training are the tasking scenarios selected to describe decisions and information requirements. USAFE COB responsibilities for receiving deploying units are also considered for their effect on in-place unit readiness.

SAC and MAC support to TFW units is also discussed. The importance of transported resources, augmentation, and host nation support is reflected in the requirements.

USAFE TFW units are viewed from two perspectives: peace and crises. Command structure and unit activity were qualified by decision makers as either daily (peace) or under variable levels of threat (crises). From both perspectives, the tactical fighter unit is viewed as supporting other Commands, and its tasking is viewed as emanating from Allied Air Forces Central Europe (AAFCE).

1.4 Functional Areas Addressed

Operations and Logistics are the two major functional areas analyzed in this Annex. Movement, maintenance, resource management, and combat support are emphasized as part of Logistics.

The organization of Air Force functional areas is followed in this analysis as closely as possible. The functionl area resources stressed are considered essential to flying the tactical fighter mission. The AFIRMS concept of the capability of an integrated fighting unit, measured against tasking, is supported and illustrated by the unit resources discussed. The scope of resource information discussed is the minimum required for measuring unit readiness. This scope can change and depends on the tasking of the unit.

1.5 Document Summary

The USAFE Annex has five major sections supported by material in the Appendixes. Section 2 briefly explains how peace and crises tasking is processed after NATO tasking is decided and transmitted. Context for this process is found in Appendix B, USAFE Tasking Structure.

Section 3, the readiness information requirements analysis, presents twelve decision modules containing Headquarters and Wing functional areas and activities in peace and crises modes. The analysis is presented in tables that summarize major activities, specify decisions to be made, delineate readiness information and data parameters required, and refer to sources of data currently used to perform the activities.

Readiness information requirements are expressed as information needed to support the decision of whether a given tasking is supportable. Readiness information required to develop plans and to train is structured under peace. Readiness information needed to respond to various alert, contingency, and combat decisions is presented under crises.

The decision analysis modules present requirements obtained from HQ USAFE and TFW functional areas. Resource movement requirements are presented separately from logistics. They entail MAC, NATO, and sea and land transportation. Neither MAC nor SAC readiness assessment is within the scope of this Annex. MAC and SAC are viewed as supporting tactical fighter squadrons. Information required to expedite carrier commitments and air refueling is discussed. The support view at Wing level entails Base Operations, Resource Management, and the Combat Support Group.

Section 4 summarizes USAFE findings, constraints, and concerns. CONUS tactical fighter units are compared to USAFE units by priorities, physical environment, and mission objectives.

Section 5 contains a comprehensive list of acronyms and terms used in the USAFE Annex and applicable to other AFIRMS documents and ongoing work.

The Appendixes as a whole represent the comprehensive analysis completed in USAFE. Document sources and Air Force personnel interviewed are presented in Appendix A. An exposition on the USAFE Command Structure, illustrated by scenarios, is included in Appendix B for reference and tasking context. The analysis and explanation of information processes and Wing operations are presented in Appendix C to supplement the reduced and refined analysis in Section 3.

Section 2

USAFE TASKING OVERVIEW

2.1 Importance to Readiness Measurement

Tasking of USAFE Tactical Fighter Wings provides a unique constraint to the day-to-day and crises decisions Air Force managers must make. USAFE Tactical Fighter Wings operate under two command structures. Appendix B gives a summary of this dual command structure. Each structure differs in a number of ways: emphasis in performance, standards, area of authority, requirements, direction, and support. Similarly, HQ USAFE must not only respond to U.S. tasking but must also indirectly respond to NATO by providing Wing resources needed to support tasking from NATO.

This section describes the tasking processes that occur during peace and during NATO crises. The roles of USAFE and NATO in these tasking processes necessitate a division of responsibility that complicates decision-making. This background is extremely important, in that the information requirements presented in Section 3 are often expanded by consideration of the divided responsibilities.

2.2 USAFE Peacetime Tasking

The tasking role of HQ USAFE in peacetime, illustrated in Figure 2-1, is to prepare its logistics support and its TFWs for tasking from NATO in time of crises. Commitments of Air Force units to support NATO come to USAFE through USEUCOM. At USAFE these units are specified in the planning process and through the use of units' Designed Operational Capability (DOC) statements. The DOCs contain combat training objectives that are used by training managers to provide aircrew training guidance to the TFWs.

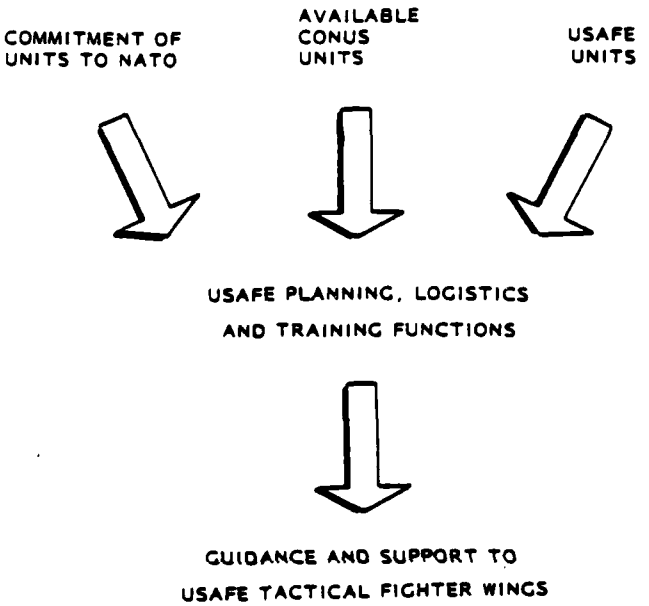

Figure 2-1. Headquarters USAFE Tasking During Peace

During the planning process potential shortfalls in supplies are identified for resolution by USAFE Deputy for Logistics and by Air Force Logistics Command. Prepositioning of supplies at COBs and FOLs is a major concern. Transportation, another major concern, is planned in conjunction with U.S. Army Europe and host nations.

Training tasking is sent to the TFWs in several ways. Air Force proficiency regulations are the first priority. USAFE then guides each Wing's training program according to Wing DOCs by planning sufficient exercises and evaluations and by providing adequate training areas.

2.3 NATO Peacetime Tasking Role

In times of peace NATO maintains skeletal command and control tasking facilities that perform airspace control and defense monitoring that are similar to their combat role. However, in this position NATO does not directly task units except in limited air defensive functions and in exercises.

2.4 TFW Tasking in Peacetime

In peacetime the TFW responds to its planned tasking by training and by standing alert. The principle tasking focus of training is on the flying hour Program Authorization (PA) from HQ USAFE and on reaching and maintaining the training objectives established by Air Force and HQ USAFE regulations. NATO performance standards are also a primary part of the tasking, as exhibited by the annual Tactical Evaluation (TACEVAL). The TACEVAL is both an evaluation and an exercise that serves as the vehicle for NATO authorities to test and impress a variety of their changing areas of emphasis on the forces earmarked in plans for NATO tactical control in the event of a European conflict.

A primary concern of the Wing is to retain sufficient residual capability, while training, to be able to respond to the crisis tasking execution order that could occur at any time. This factor is a strong influence on many daily decisions.

2.5 USAFE Role in NATO Crises

In the event of a NATO declared alert condition, USAFE tactical fighter forces change operational control to NATO command and control. HQ USAFE and the Numbered Air Forces (NAFs) support the TFWs to carry out their tasking from NATO. Therefore, USAFE's tasking is to ensure the TFWs are capable of accomplishing and sustaining their tasking. USAFE does this by monitoring the tactical situation and NATO missions assigned to the TFWs. USAFE must also advise NATO of unit sortie capability and sustainability.

2.6 NATO Tasking Process in Crises

Exercise of tactical control of NATO forces begins at the level of region commands. The Commander in Chief, Allied Forces Central Europe (CINCAFCENT) and Commander, Allied Air Forces Central Europe (COMAAFCE), jointly plan and monitor major operations. The Allied Air Forces Central Europe (AAFCE) directive to its forces is the Air Directive. The major processes used to produce the Air Directive are shown in Figure 2-2. This daily tasking allots or temporarily reassigns forces across normal boundaries of the subordinate Allied Tactical Air Forces (ATAFs). It also provides broad guidance on the priority of the day's operations. When required AAFCE can also reassign the role of those "swing" aircraft units that are capable of either offensive or air defense missions. Support aircraft units and certain special assets are also tasked in this document.

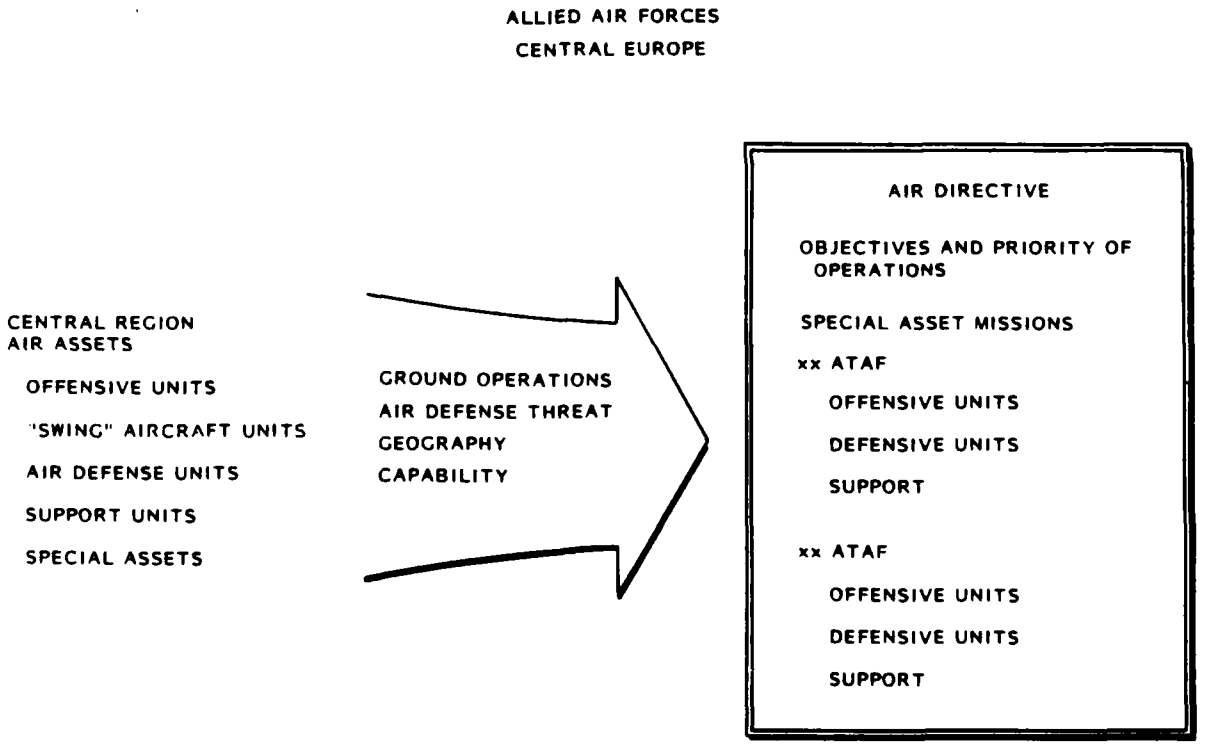

Figure 2-2. AAFCE Tasking in Crises

At the ATAF level, tasking of TFWs becomes more specific in the form of the Daily Operations Order (DOO). The ATAFs allocate offensive and defensive forces to the Allied Tactical Operations Centers (ATOCs) and Sector Operations Centers (SOCs), respectively, and allocate tankers and other special assets. Each TFW is generally dedicated to a single ATOC in a single role for a day's tasking. The ATAF may specify missions down to the level of time-on-target, weapons, and number of aircraft.

The ATOCs and SOCs specify the full mission details to the Wings. This process is outlined in Figure 2-3. Each ATOC and SOC issues an Air Tasking Order (ATO) which is the primary specification of the next day's missions for each TFW. For offensive Wings the ATO specifies missions either by time-on-target or a so-called "block time", that is, a time slot during which the assigned number of aircraft with assigned weapons remain on-call to a specified Corps. An Air Tasking Message (ATM) can be issued at any time after the ATO to specify take off time and other details such as call signs and the controlling unit. For defensive missions the SOC can issue an Airborne Order (ABO) to specify essential target and control information.

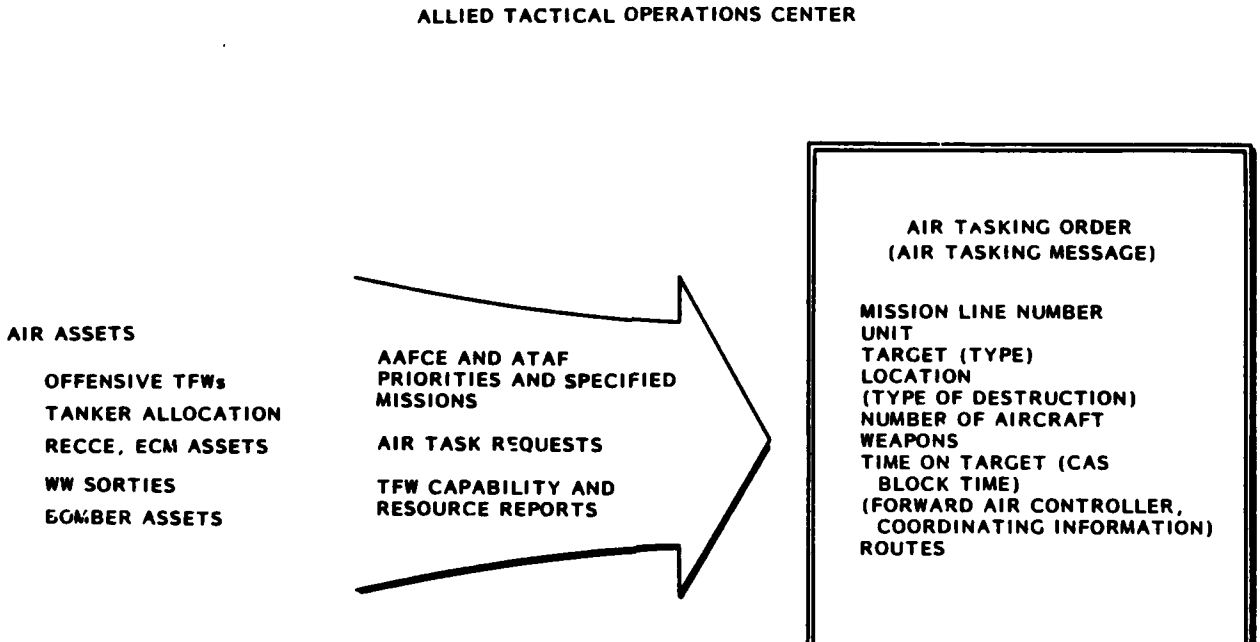

Figure 2-3. ATOC Tasking in Crises

The ATOCs derive the mission specifics both from the Daily Operations Order and from Air Task Requests (ATRs) from the Air Sector Operations Center (ASOC) that is within each Army Corps. The ATOCs determine unit capability for the next day based on each Wing's reports of resource status and capability.

2.7 Tactical Fighter Wing Crises Tasking

The ATO is the focus of the Wing's sortie production in NATO crises situations. The Wing Commander must first decide the feasibility of accomplishing the ATO based on the staff's assessment of the capability of personnel and the condition of resources. Once feasibility is decided, Wing Operations and Maintenance personnel detail a generation flow plan and distribute this plan for the aircrews and the generation, munitions and repair crews to perform their respective duties. During execution of the day's flow plan the Wing Operations Center (WOC) orchestrates the myriad of changes that occur as a result of ATM tasking changes, attritions and damages.

Section 3

USAFE READINESS INFORMATION REQUIREMENTS

3.1 Analysis Approach

The objective of the AFIRMS functional area requirements analysis is to define readiness information needed by personnel to make decisions about unit resource capability to perform tasking. Decisions are made by various personnel from Operations and Logistics, by Wing Commanders and staffs, and by USAFE Headquarters staff. Information that supports decisions is presented in the decision analysis modules that follow. The modules contain readiness information requirements obtained from Air Force personnel, documents, and observations. Activities at Command Posts, Headquarters and Wing Readiness Centers, and Maintenance Job Control were observed during exercises and routine operations to analyze the information processed from units.

USAFE management and operations were observed and discussed with Headquarters and Wing personnel. USAFE concentration on combat readiness initiatives and employment objectives guided the scope of the unit resources to be discussed. Commanders and functional area managers repeatedly stressed a common set of resources critical to unit readiness. Readiness questions and information presented in this section address these resources.

3.2 Information Structure

The readiness information requirements are structured as shown in Figure 3-1. The condition of "peace" includes training and other preparations for actual conflict. "Crises" includes a continuum of military actions that range from a simple show of force to an all-out, protracted war. Deployment or employment can occur and units may or may not engage. Crises is not limited to extremely critical conditions of heightened conflict and attrition.

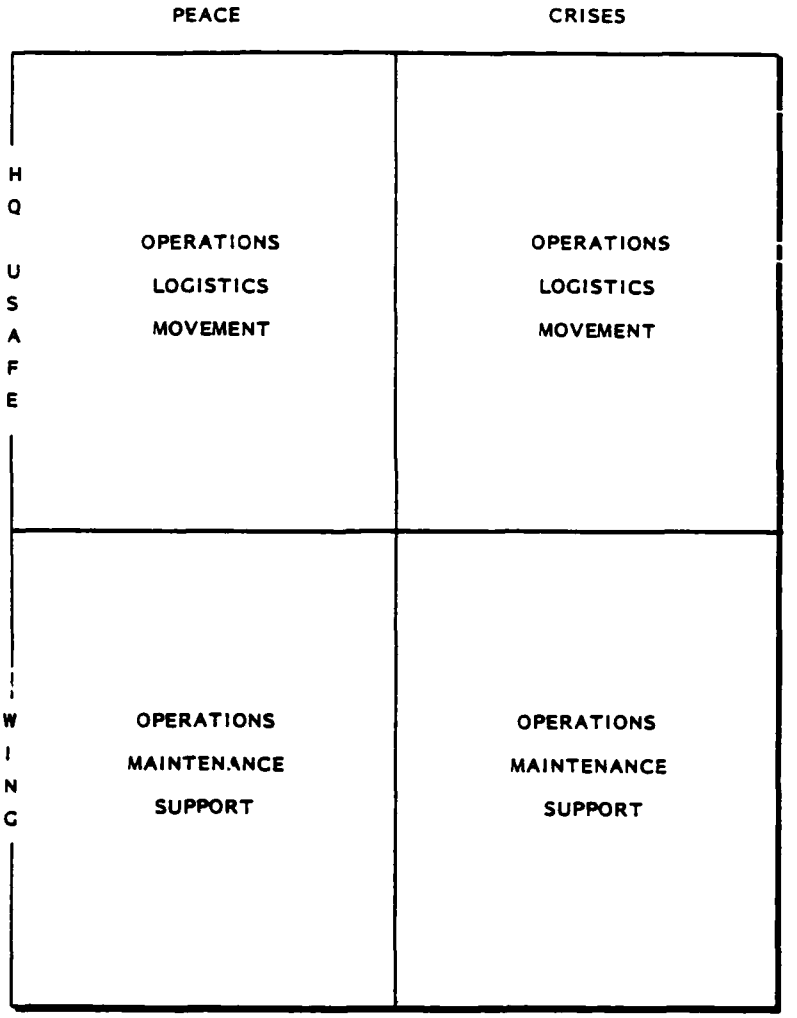

Figure 3-1. USAFE Readiness Information Requirements Structure

HQ USAFE and Wing level information requirements during peace are followed by requirements at the same command levels in crises mode. Each element within the quadrants of the matrix represents a decision analysis module. The modules contain:

- Schematics of major activities requiring readiness information
- Text for exposition and decision highlights
- Decision analysis tables containing questions to support decisions, readiness information required to answer questions, and data currently used to support decisions (information out of scope of readiness requirements is boxed)

The modules group information requirements into twelve primary functional areas of responsibility. However, none of the modules is totally independent. For example, an Operations supervisor may be extremely interested in information that is listed in a Maintenance module. Consideration must be given to the information contained in all twelve modules in order to reflect accurate readiness information requirements.

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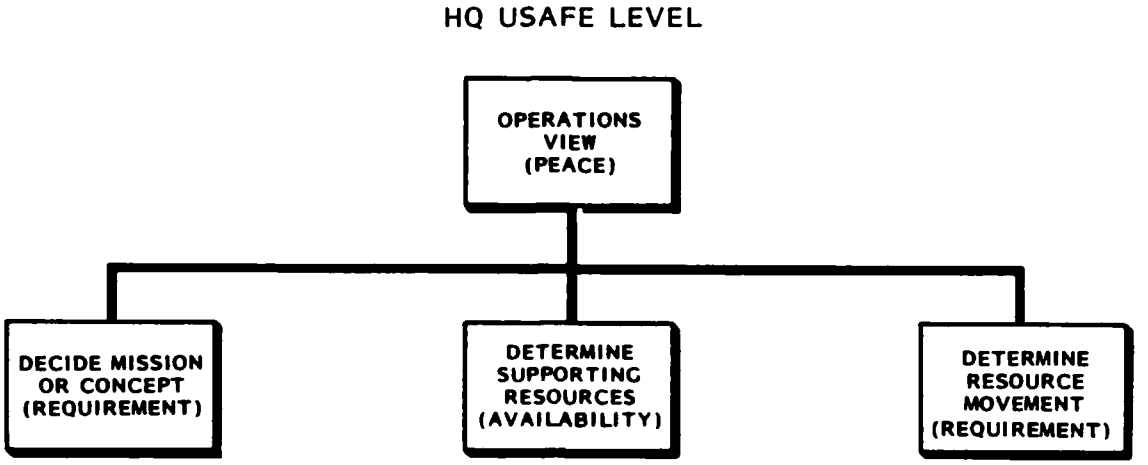
3.3 Decision Analysis Modules

3.3.1 Operations View, HQ USAFE, Peace



The readiness information requirements in this module support long range planning, contingency, or crisis planning and management of training. Operational planning is an ongoing process with plans being updated as threats and force structures change.

NATO objectives significantly influence the planning process in USAFE. USAFE units are tasked by EUCOM. MAJCOM planners decide the acceptability, feasibility, and supportability of the tasking and specify units that will respond and the support resources needed. The results of the planning process vary according to the source, objectives, and timing of the tasking.

An Operational Concept specifies units, major force package, and Primary Authorized Aircraft (PAA). Rapid response situations require that HQ USAFE formulate orders for units. For either standard or tailored plans, Operations decides the mission, tactics, and aircraft to be used. Operations works with Logistics to determine the feasibility and supportability of the plan. Unit readiness and availability influence decisions about augmentation and positioning of resources.

DOCs and the flying hour Program Authorization are key factors in managing the Wing's preparations for execution of their tasking. Operations monitors the accomplishment of training and seeks improvements in the quantity and quality of training.

Table 3-1
Decision Analysis

Operations View, HQ USAFE, Peace

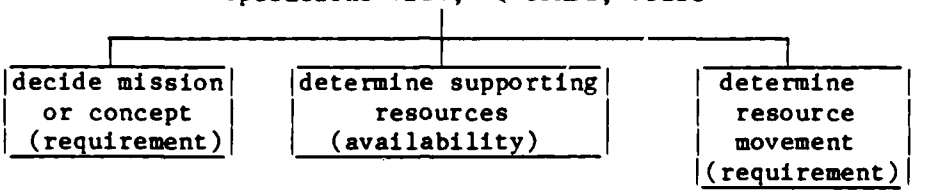
decide mission or concept (requirement)	determine supporting resources (availability)	determine resource movement (requirement)

QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Decide Mission or Concept		
1. Is EUCOM tasking appropriate for USAFE?	Description of current political situation	USAFE mission capabilities expressed in kind and status
	Definition of mission and tactics to accomplish tasking as decided by operational experts	USAFE Concept of OPS (Plan Summary and OPS Appendix)
		USAFE planned tasking in Support Plans
2. How should USAFE support EUCOM?	Required Air Force units	USAFE Concept of OPS
	Available USAFE response options	Type of weapon (MDS)(SCL) Quantity of (MDS) Number of sorties Duration of sorties. Timing/sustainability
	Possible tactics and missions as decided by operations experts	USAFE planned tasking in Support Plans
		Available forces in WMP-3
		Flying hours allocated to Wings as Program Authorization (PA)

(Boxed information is not within scope of AFIRMS)

Table 3-1
Decision Analysis

Operations View, HQ USAFE, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURENTLY USED TO SUPPORT DECISIONS
Decide Mission or Concept		
3. Which units will be tasked?	Units with DOC required by missons: Weapon system type Unit designation, location Mission Required sorties per day Required sortie duration Weapon system configuration	Designed Operational Capability specifying: Type of weapon (MDS) Unit designation Number of aircraft Number of sorties Duration of sorties Other unit DOCs
	Capability of the units to support the projected sortie type and number spread over duration of tasking	Flying hours allocated to Wing Wing responses DOPSUM, OPSTAT and UNITREP
	Unit readiness history	Unit trends in ORI, exercises and TACEVAL
	Unit's reasons for past deviation from training schedules or allocation	Unit's daily sortie production Monthly training reports of aircrew status

Table 3-1
Decision Analysis

Operations View, HQ USAFE, Peace

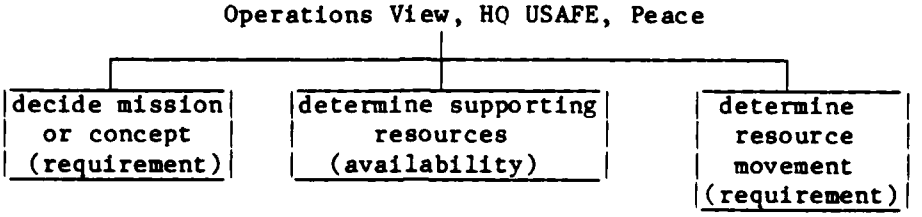
decide mission or concept (requirement)	determine supporting resources (availability)	determine resource movement (requirement)

QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURENTLY USED TO SUPPORT DECISIONS
Decide Mission or Concept		
3. Which units will be tasked? (Cont'd)	Unit's surge capability by Wing and Squadron	USAFE planned tasking in Support Plans
	Squadron GCC levels by sortie type, quantity, and quality	Intelligence Summaries (INTSUMs)
	Unit's variation, if any, from NATO requirements	
	Likelihood of execution of plan considering politics, strategy, and tactics (Decided by operations and intelligence experts)	
	Available squadrons and locations that are: Minimally committed or uncommitted to this tasking	
4. Is plan or tasking sufficient?	Intelligence and commander judgment of probable outcome considering knowledge of threat	Suitability/Acceptability/ Completeness of Plan
		Logistics responses
5. Is the likely outcome worth planned or tasked resources?	Intelligence and commander judgment and knowledge of threat	Situation, Politics at Employment, Rules of Engagement, other priorities

(Boxed information is not within scope of AFIRMS)

Table 3-1
Decision Analysis

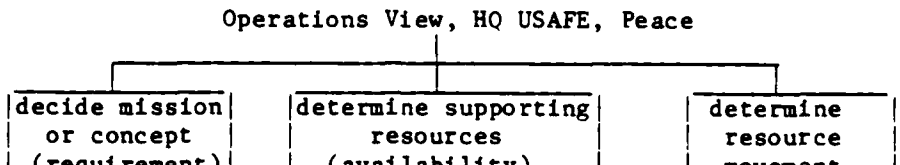
Operations View, HQ USAFE, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURENTLY USED TO SUPPORT DECISIONS
Determine Supporting Resources		
1. Is a logistics concept developed or can one be developed?	Capability of Logistics to support tasking (from Logistics experts)	Response from Logistics
2. How can USAFE respond without augmentation?	Available capability of weapon systems Weapon system location and constraints, e.g., time required to deploy/employ; overflight and landing rights Other weapon system commitments: Squadron Location Primary tasking Secondary tasking Alert tasking	Type of weapon (MDS)(SCL) (PAA) Quantity of (MDS) Number of sorties Duration of sorties Timing/sustainability Unit location Performance specifications (speed, range, SCL configuration) USAFE planned tasking in Support Plans Flying hours allocated to Wing Diplomatic messages (Department of State)

Table 3-1
Decision Analysis

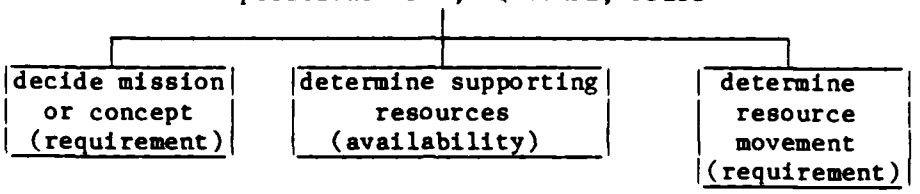
Operations View, HQ USAFE, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURENTLY USED TO SUPPORT DECISIONS
Determine Supporting Resources		
3. Can the selected units be supported?	Number of prebuilt UTCs that support the PAA	Logistics responses
	Availability of tailored built packages	SAC tanker allocation
	Amount of time, manpower, equipment, and support required to prepare site	Sortie rates from WMP and OPLANs
	Availability of air-to-air refueling	
	Feasibility of closure times	
	Airlift flow (Summary)	
	Lines of Communication (LOC) (Summary)	
4. Is there sufficient augmentation?	Resources that can be moved to the employment site	Logistics responses
	Limiting factors for support of the units: Aircraft Aircrews Munitions Manpower Fuel Supplies Vehicles Equipment	Time Phased Force Deployment List (TPFDL)

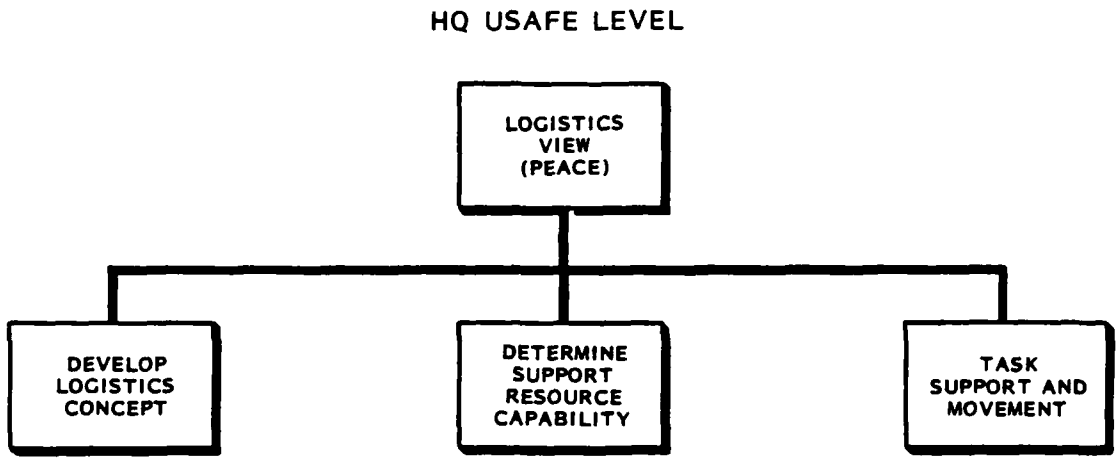
Table 3-1
Decision Analysis

Operations View, HQ USAFE, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURENTLY USED TO SUPPORT DECISIONS
Determine Supporting Resources		
4. Is there sufficient augmentation? (Cont'd)	Length of time units can fly sorties per aircraft in days or hours	
	Number of sorties units can fly in days and hours	
	Time when units will expend critical resources (expressed in days, hours, and sorties)	
5. Can augmentation be improved?	Incremental increase in sortie production for increase in specified resources	Logistics responses
Determine Resource Movement		
1. Can USAFE respond by augmenting forces and support?	Location of prepositioned resources closest to employment	LG concept Logistics responses
	Movement capability (hours, tons, PAX, outsize) by air, land, and sea	
	Air refueling capability (location, time, volume)	
	Feasibility of closure times (Summary)	
	Required airlift flow (Summary)	
	Feasibility of movement of resources to the employment site	

3.3.2 Logistics View, HQ USAFE, Peace



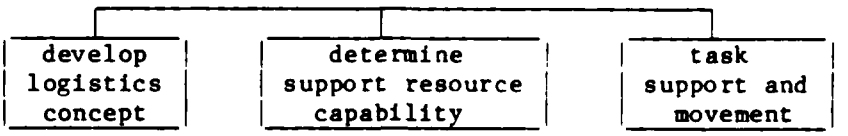
Operations specifies the tasked unit(s), mission, objectives, location, closure times, and numbers and types of aircraft. Logistics uses this information to identify requirements and assess logistics capability to support the tasking.

To assess logistics capability, Logistics planners identify pre-defined Unit Type Code (UTC) packages required to support the tasking. The unit's capability to provide the required UTCs and the availability of airlift to move them within the time required are thoroughly examined before the tasking is declared logistically feasible. In preparing the OPLAN or OPORD, asset availability is coordinated with the tasked unit by phone or personal contact when time permits. Logistics planners also assess, by whatever means they have, the availability of assets at the deployment location. Other site preparation required is also identified and is included in the logistics portion of the unit tasking plan. Matching the requirement against what is available at a deployed location to perform the tasking is a key responsibility of the logistic plan. In USAFE, many times the units are tasked to operate in place. When this is the case, the planners' primary task is assessing the capability of a tasked unit to sustain.

After assessing the unit's tasking capability and identifying the peculiar aspects of the mission, the logistics portion of the tasking plan is prepared. Detailed instructions are provided the tasked units based on the above assessment of their capability. During the process of implementing a plan, a unit will provide feedback to the Headquarters staff which adjusts the plan accordingly.

Table 3-2
Decision Analysis

Logistics View, HQ USAFE, Peace

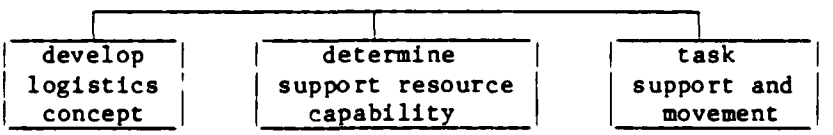


QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Develop Logistics Concept		
1. Can Logistics support Operations Concept?	Statement of Operations Concept	Logistics Concept
	Logistics Concept that supports Operations Concept (Decided by Logistics experts)	Rough estimate of support capability
	List of options to include standard prebuilt UTC packages that match PAA, UTC, and Operations Concept Munitions Fuel Maintenance Vehicles Communications (OPS/LG) Services Transportation Supplies Personnel	Limiting factors and shortfalls by MDS Logistics support for Operations Concept Personnel capabilities and skills LOGFOR MANFOR OPLAN TPFDL WCDO WAA
	Limiting factors influenced by: Time-Warning, tasking duration, sortie duration Location-Environment, threat Equipment-Standard configuration for aircraft, AGE, and MHE Assets-On-hand and at bed-down locations Personnel-Billets and replacements Transportation-Airlift, LOC Munitions-Full rounds Fuel-Volume	Logistics translation of Operations requirements into Logistics requirements and language (Munitions, fuel, transportation, personnel, support services) Input to Air Tasking Order

(Boxed information is not within scope of AFIRMS)

Table 3-2
Decision Analysis

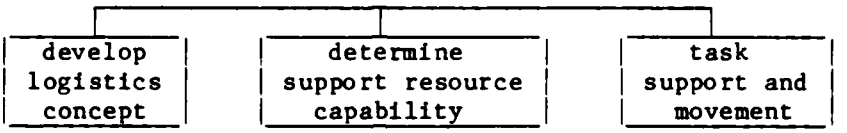
Logistics View, HQ USAFE, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Develop Logistics Concept		
1. Can Logistics support Operations Concept? (Cont'd)	Limiting factors influenced by: (Cont'd) Maintenance-Crews, equipment Supplies-Mission essential Base Facilities-Vehicles, parking spaces, ramp spaces Communications	

Table 3-2
Decision Analysis

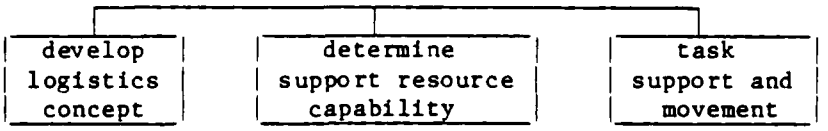
Logistics View, HQ USAFE, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Determine Support Resource Capability		
1. Which resources are needed to support the Logistics Concept?	Resources at or near location Munitions Fuel AGE Water Supplies Resources that can be deployed Logistics requirements converted to UTC packages for deployment and tailored to support Operations Concept Maintenance Fuel Munitions (built-up) Supply Transportation Personnel Source location of assets needed Quantity Availability for use	Responses from EUCOM or USAFE OPS Answers about Logistics capability Timing Location Quantity, availability of Logistics UTCs, and critical resources, e.g., Munitions Fuel Manpower Maintenance Services Site preparation Transportation Lines of Communication Political constraints Logistics translation of Operations requirements into Logistics requirements and language (Munitions, fuel, transportation, support services) Input to Air Tasking Order

Table 3-2
Decision Analysis

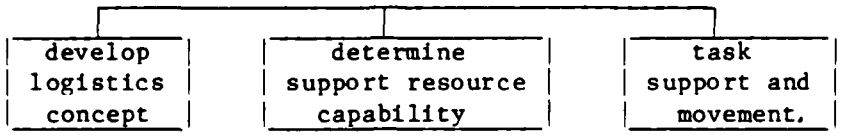
Logistics View, HQ USAFE, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Determine Support Resource Capability		
1. Which resources are needed to support the Logistics Concept? (Cont'd)	Shortfalls in building required UTC Location-Time to employment site Quantity-Below standard configuration Availability-Quantity committed/uncommitted for equipment, fuels, supply, services, civil engineering support, vehicles	
	Availability and limiting factors for standard or tailored resources from bases other than sourcing base Communications (C^3) Lines of Communication Munitions Equipment Supplies	
	Availability and shortfalls of materiel handling equipment and port facilities to offload deployment resources from airlifters	
	Airlift Control Elements (ALCE) required for on and offload conditions	

Table 3-2
Decision Analysis

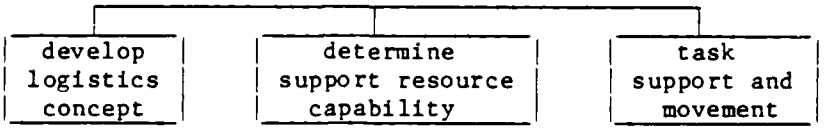
Logistics View, HQ USAFE, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Determine Support Resource Capability		
1. Which resources are needed to support the Logistics Concept? (Cont'd)	ALCE availability Number of teams Location Response constraints Availability of support UTC packages Communications-Location Vehicles-Type, quantity, availability of maintenance Equipment-Type, quantity, availability of maintenance Airfield-Type, condition, location Tailoring required for UTC Match of aircraft UTC with logistics UTC Shortfalls and logistics resources outstanding Location of resource Location of uncommitted resource Response time requirements for outstanding resources uncommitted	

Table 3-2
Decision Analysis

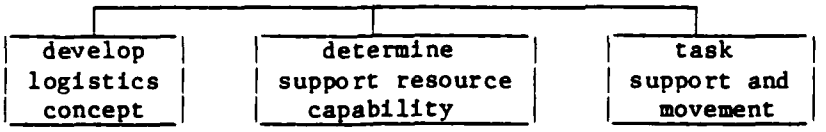
Logistics View, HQ USAFE, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Determine Support Resource Capability		
2. Can the force be sustained?	Bases closest to employment location MOB, COB, FOL availability and suitability Options for Lines of Communications Bases to support sourcing base Availability Location Matched facilities Communications package source to support OPS/LG communiation Availability Location	Responses from bases about Logistics capability Timing Location Quantity, availability of logistics UTCs, and critical resources;e.g., Munitions Fuel Manpower Maintenance Services Site preparation Transportation Lines of Communication Political constraints

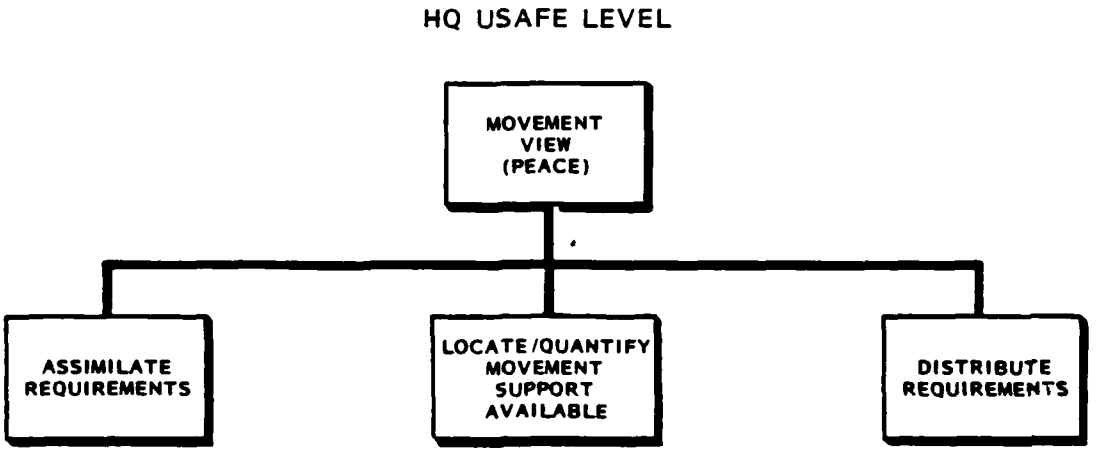
Table 3-2
Decision Analysis

Logistics View, HQ USAFE, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Task Support and Movement		
1. Can airlift support Logistics requirements?	Location of SAC tankers staged and fuel storage locations Logistic airlift requirements Number of airframes Load type Size Weight Required ramp and parking spaces for employment and load Available routes, overflight and landing rights Throughput capacity of aerial-port facility Ability for distance and load to meet closure time	Support for special tasking to deploy Limiting factors and shortfalls by MDS

3.3.3 Movement View, HQ USAFE, Peace



Sustaining operations and surviving depend on arrival of CONUS resources at ports. Expediting the movement of resources to their point of intended use, after they reach ports, is one of the main responsibilities of USAFE transportation planners.

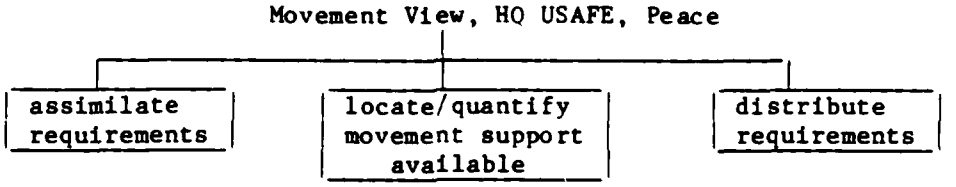
Resource Movement is separated from the previous HQ USAFE Logistics view because various kinds of transportation are required and USAFE is responsible for tasking them. Coordination with host nation transportation management adds communication requirements. Determining the support to be provided by host nations and obtaining commitments must be done before tasking units. Because other services, agencies, and host nation services are required for surface transportation, a network of Lines of Communication (LOCs) must also be monitored. At HQ USAFE, MAC division managers dispatch requirements for airlift. These are input to MAC from Logistics and originate from the Wing when tasking is being determined by Operations. Staging and flow proceed according to the MAC system.

To quantify available transportation, support requires that all USAFE requirements be evaluated and translated by type, weight, size, and volume of load. The load requirements are then expressed in terms of the type and number of carriers or airframes required. MAC's planning concerns are aircraft staged, current commitments, priorities, and capability to deliver the resources within the time needed.

Assessing movement capability also requires current information about the base facilities that are to receive the load. Adequate ramp space and parking must be verified so that offloading can occur in time to be useful for the tasked units and to sustain sortie generation at a base.

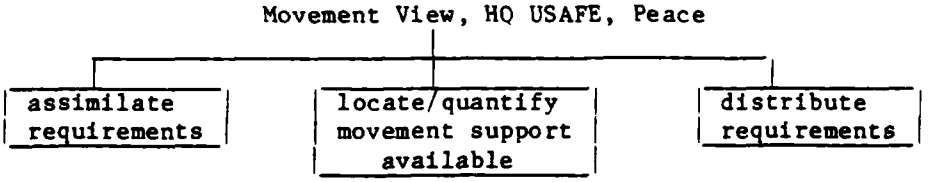
Intricate deployment planning and scheduling are driven by the required closure times. A huge volume of airlift, shipping, trucking and rail transportation must be planned in detail.

Table 3-3
Decision Analysis



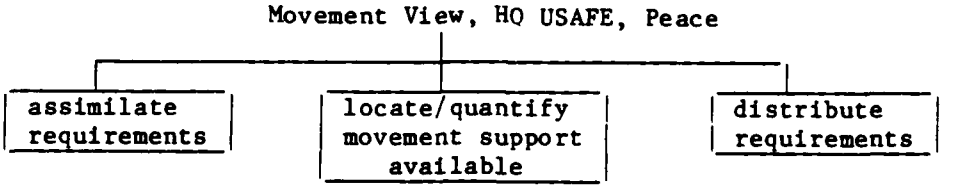
QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Assimilate Requirements		
1. What are current USAFE movement requirements?	Quantification of resource lifts and loads	Airframe capacity and capability to haul load
	Load type, unit size	Host nation support committed and available
	Total volume to be moved	LOCs available
	Distance to be moved	Shipping and transportation documents and messages
	Time required at point of use	
Locate/Quantify Movement Support Available		
1. What support can MAC and Military Sealift Command (MSC) provide from CONUS and in-theater?	Facilities at aerial port closest to employment Throughput capacity Parking spaces Ramp spaces Priorities, commitments	Sea/air interfaces at ports Movement capability available from host nation Movement commitments, priorities, and options
	Available routes, overflight and landing rights	Closure times supportable
	Available airframes to move tonnage to ultimate location by: Quantity of airframes by type Capacity and type load can haul Short tons Size (cubes) Outsized loads PAX Time required to respond Location	

Table 3-3
Decision Analysis



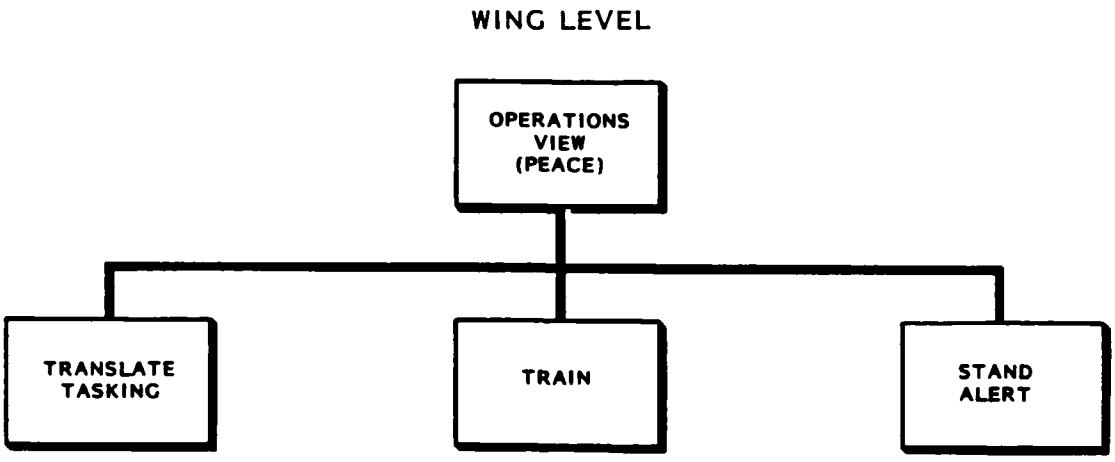
QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER OUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Locate/Quantify Movement Support Available		
1. What support can MAC and MSC provide from CONUS and in-theater? (Cont'd)	Availability of shipping and port facilities	
2. Can ground transport requirements be filled?	Air Force trucking available	Joint Service Agreements
	USAREUR Motor Transport Flatbeds 10-ton 5-ton Dump trucks	Standard NATO Agreements (STANAGs)
	Host-nation Trucking Rail	
3. What capability can be provided to resupply?	Short tons that can be moved on a specified day to a location to support a specific force or tasking	

Table 3-3
Decision Analysis



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Distribute Requirements		
1. What closure times can be supported?	MAC flow plans from CONUS and in-theater supply and unit shipping schedules Handling of deployment packages Sequencing Loading Offloading Ground transportation schedules Supportable closure times Slippage of schedules	Distributed movement taskings Established interfaces, resource movements, lines of communication (from an initial location to ultimate destination)

3.3.4 Operations View, Wing Level, Peace



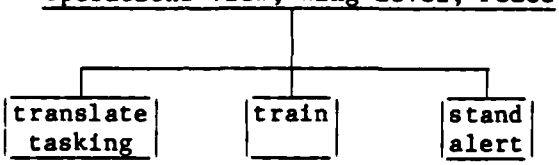
Decisions at Wing during peacetime focus on effective use of flying hours and optimum generation of sorties. Operations trains against the unit's wartime commitment to support NATO. Each day the Wing schedules aircraft to satisfy proficiency training requirements of squadrons. Resources and flying hours are allocated to units who schedule aircrews for training.

Residual combat capability is a part of the tasking commitment. At any time, units must be ready to respond to NATO tasking. In addition, reserved alert aircraft, aircrews, and maintenance support must be managed.

The Wing Commander and his staff monitor units to ensure that training requirements are met and that units can respond to combat commitments.

Table 3-4
Decision Analysis

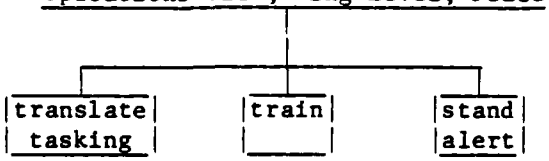
Operations View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
1. What resources does the tasking require?	Mission requirements Number of aircraft Weapons and munitions to be used Number of sorties, type, duration Flying hours and training sorties required Qualification level of aircrews(MR, MQT, MS) Sortie requirements per aircrew to maintain/reach required level Training objectives per Air Force and USAFE regulations	Training accomplishments, GCC levels, flying hours, fighter experience, combat experience Allocated yearly flying hours (PA) USAFE OPLANs and regulations

Table 3-4
Decision Analysis

Operations View, Wing Level, Peace

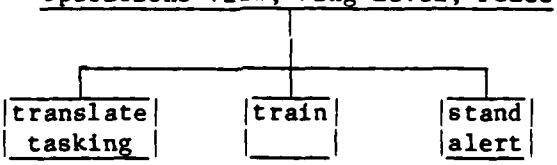


QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
2. What is the expected annual and quarterly schedule for sortie production?	History of average a/c availability (FMC rates) Daily a/c flying goal as a percent of the expected FMC rate Expected sortie loss due to weather Adjustments for off-station training, special taskings, training resource availability, sortie rate history at each deployment site Quarterly sortie contract (in hours) compared to Program Authorization(PA)	Weekly, monthly, quarterly, semi-annual, annual flying schedules Tasking commitments to Wing Flying Program Translation of sorties (from Maintenance) into flying hours

(Boxed information is not within scope of AFIRMS)

Table 3-4
Decision Analysis

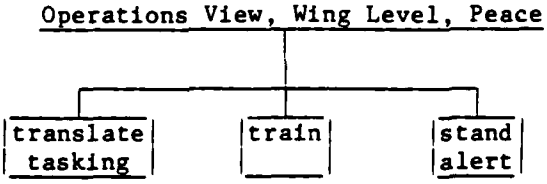
Operations View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
3. Can the tasked units respond?	Units/aircraft ready against known tasking requirements	Incoming pilot data, DEROS, experience, hours, and levels
	Completed training for required exercise tactics or weaponry required Aircrew member hours in wing flying program, GCC squares filled Remaining squares	MICAP status Training requirements and accomplishments TACEVAL, ORI, and exercise performance
	Wing/Squadron performance history(scores, statistics, trends for duration needed)	
	Available support and sustaining resources Sortie type against available resources Projected sorties feasible Quantity and duration	
	Launch prohibitors, e.g., Spares Parts Aircrews Flight leads Crew Chiefs Munitions Engines Choke points Runway obstacles(snow, ice, broken or crashed aircraft, or vehicles)	

Table 3-4
Decision Analysis

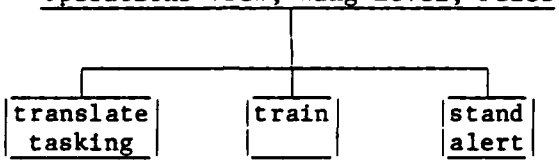
Operations View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER OUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Train		
1. Which aircrews are to be assigned to the flying schedule (daily to three weeks)?	Aircrew experience Name Type of sortie, date, total number, total hours, GCC level reached Type aircraft flown, hours Position (FL, SOF, IP, RSU, RIPI-6, RTU, FAIP, Flight Commander) Time in or attached to squadron, remaining time Combat hours, location, tour(s) TAF experience (maneuvers, sorties, kind number, aircraft type, hours, weather category, fighter a/c type) Other USAFE flying experience(if part of tour not in squadron) Evaluation ratings Weapons Training Detachment, hours Aircrew GCC profile Combat Maneuvers Instruments Weather Air-to-air refueling Formation	Wing and Squadron flight records Squadron Flying Boards Range availability TRAs Aircrew Evaluation Board Letter Wing and Squadron training objectives and standards

Table 3-4
Decision Analysis

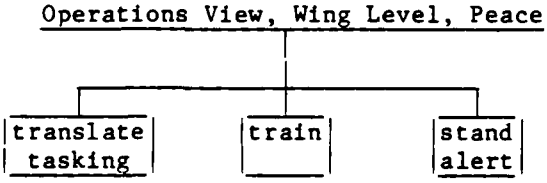
Operations View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Train		
1. Which aircrews are to be assigned to the flying schedule (daily to three weeks)? (Cont'd)	Current location of aircrews Name Location (if off-station, site) Time to return Reason (WTD, exercise, DACT) Aircrew commitments for deployment Names (ordered by date of departure and return) Location Reason Checkride requirements Names Due dates Type or squares to be filled Simulator training requirements Ground school requirements Number and names of aircrews who have not satisfied minimum hours for Air Force proficiency standards Sorties required to increase aircrew proficiency by type, e.g., night, AAR	

Table 3-4
Decision Analysis

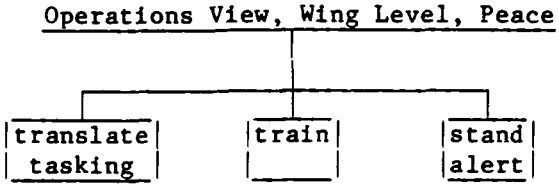
Operations View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Train		
1. Which aircrews are to be assigned to the flying schedule (daily to three weeks)? (Cont'd)	Number of sorties flown per aircrew member since entered squadron Type specified Conversion to percent of squadron sorties flown Percent of all sorties flown on base	
2. What resources are required/available to support the schedule?	Number of sorties to be flown Tail numbers Airspace(TRA, low level, and low fly) Radar bomb sites Tanker availability Configuration Duration Generation pattern for each squadron for each day Priority squadron Time and location of available training resources Special tasking Number of a/c Maintenance can support and spares Simulator time	Training resource allotment by NAF

Table 3-4
Decision Analysis

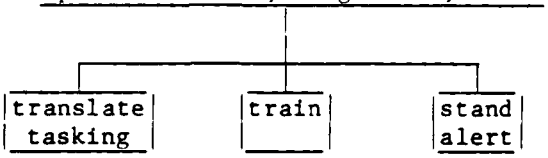
Operations View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Train		
3. Which aircrews are most in need of training during the coming quarter?	Aircrews in each squadron by qualification level (MR, MQT, MS)	Aircrew training and proficiency reports
	Weapons proficiency for each each squadron (number of sorties for each weapon system for each individual)	
	Time and number of hours/ sorties in USAFE environment for each individual	
Stand Alert		
1. Which aircrews are qualified for alert duty?	Aircrew experience(special qualification for alert duty	Ready aircraft and aircrews
2. Are aircrews adequately briefed and aware of mission?	Aircrew accomplishment of target study and mission planning	Alert tasking, including potential target, ROE, response time, authentication procedures
	Aircrew briefings on the rules of engagement	Target intelligence
		Tactics and delivery maneuvers
		Weather forecasts
		Enroute and target charts

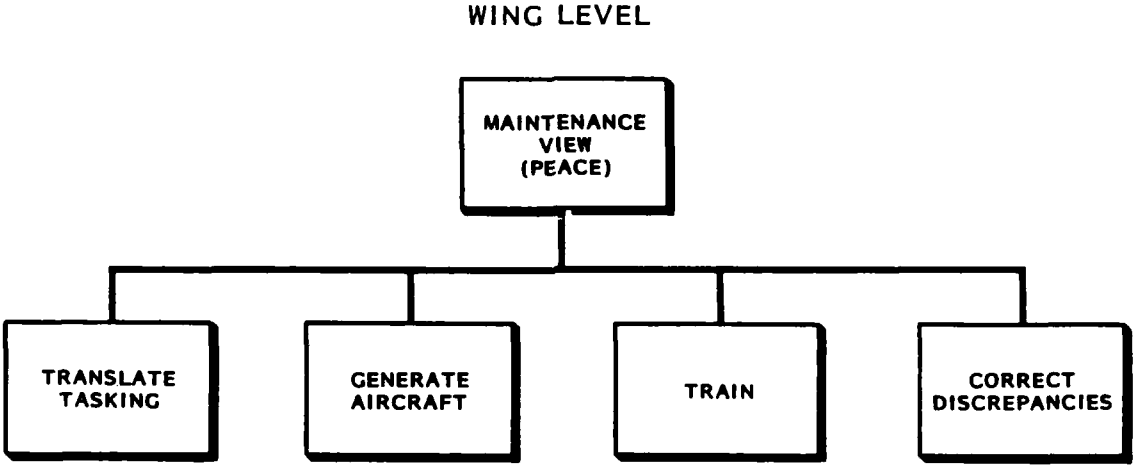
Table 3-4
Decision Analysis

Operations View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Stand Alert		
3. Are aircraft properly prepared?	Availability of qualified maintenance personnel	TABVEE status
	Availability of operational support equipment	
	Aircraft configuration	

3.3.5 Maintenance View, Wing Level, Peace



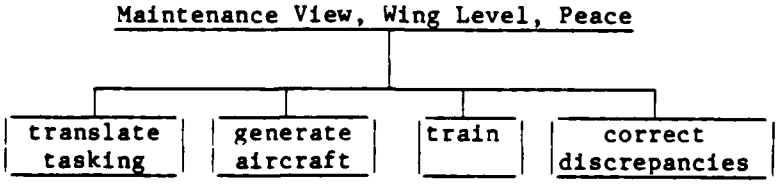
Maintenance has one major peacetime objective: to achieve a sortie goal tied to combat training requirements. The maintenance sortie goal, contracted yearly within the Wing and approved at MAJCOM, drives long range planning and scheduling in the Maintenance Complex.

Maintenance activities and readiness information requirements for peacetime and crises are similar. The main differences are configuration requirements in combat, turn requirements, and preparation for battle damage. Decisions start with determining that scheduled sorties can be generated in the time and quantity that Operations needs. The weekly scheduling conference held by the Wing Commander includes representatives from Operations squadrons and Maintenance squadrons. Maintenance brings planned schedules to this meeting. To determine daily schedules, Maintenance squadrons analyze scheduled maintenance requirements, deployment maintenance requirements, and the capability of crews and support resources to repair and maintain in addition to the daily aircraft generation requirements.

When the weekly schedule has been established, Aircraft Generation Squadrons analyze daily generation requirements and decide which aircraft are to be generated for the week, which spares will be used, and which aircraft will go to shops for repairs, preventive maintenance, or depot maintenance. A daily take off sequence is developed by Operations and Maintenance decides which aircraft will be assigned to the sortie sequence and what spares will be needed and used if a malfunction abort occurs among the scheduled aircraft. If the schedule requires turns, either integrated combat or peacetime daily sortie turns, a turn pattern and sequence have to be established that accommodate service, loads, and configurations required by the mission. The daily activity in the maintenance squadrons, particularly aircraft generation, is constrained by take off times, safety regulations, training, parts, and any discrepancies that could occur on the ground or in flight. Maintenance scheduling has to consider all of these factors and allow for unscheduled maintenance and problems that can occur unexpectedly, when deciding whether or not Operations' sortie requirements can be met.

Table 3-5
Decision Analysis

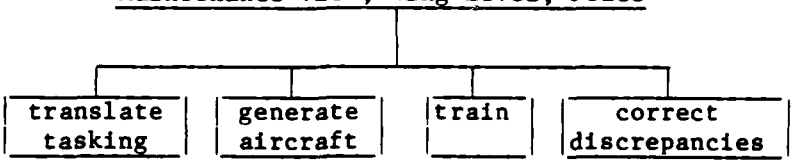
Maintenance View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
1. Can the tasked units respond?	TOTs, weapons, configurations, mission priority	MA generation records, sortie goals, accomplishments
	Units/aircraft ready against known tasking requirements	TACEVAL, ORI, and exercise performance
	Turn times with and w/o configuration changes	Job Control Boards
	Launch prohibitors Spares Parts Maintenance personnel Engines Munitions Choke points Runway obstacles(snow, ice) POL	Assigned resources (people, equipment, vehicles) Break Rates MICAP status Supply effectiveness
	Performance profile of maintenance crews charted to show effect of peaks and lows in generation rates	
	Time and number of sorties until current available resources will run out or be unable to sustain the tasking, stipulating which resources will be expended or drawn down	

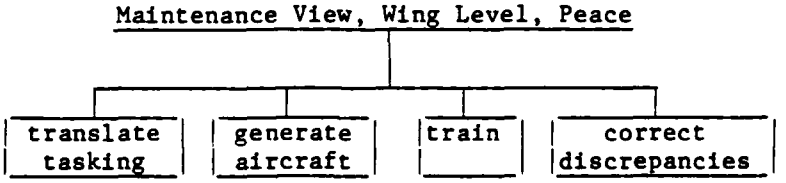
Table 3-5
Decision Analysis

Maintenance View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
2. What resources are required?	Generation requirements Number of aircraft by squadron Required configuration Number of sorties, type, duration	Maintenance personnel rosters and training records Quarterly/yearly sortie contract
	Maintenance personnel AMB crew chiefs Weapons loaders/crews Shop specialists(in-shop and flightline dispatch)	Maintenance analysis reports
	Projected maintenance attrition rates in sorties	
	Maintenance manhours needed per flying hour-correlation of hours showing skill spread, sortie type, sortie duration	
3. What is the daily flying schedule?	Number of sorties to be flown Tail numbers Maintenance personnel available Configuration Duration	Daily Stand-ups and other briefings AMB Scheduling Boards
	Generation pattern for each squadron	
	Priority squadron	
	Number of a/c maintenance can support and spares	

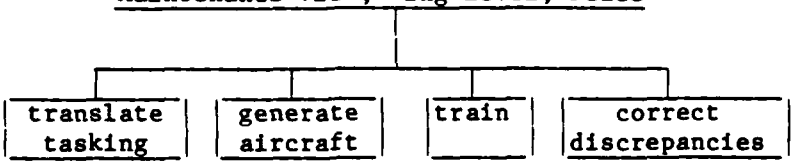
Table 3-5
Decision Analysis



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
4. What is the generation flow plan?	Location of probable choke points Number and priority of aircraft to be hot pit refueled, turned, and uploaded Turn times necessary to meet operations requirements Take off times Taxi times Fuel truck availability (by time) Hot Pit availability Choke points Munitions availability (by time and location) Chaff and drag chute availability	Job Control Boards Assigned resources (people, equipment, vehicles) AMB Scheduling Boards
5. What are the schedules for AGS personnel and weapon assemblers?	Available personnel AFSCs per tail number TABVEE location Name Skill level Availability of augmentees From EMS or CRS From wing resources From base resources Skill levels available Skill levels needed Time needed to train	Maintenance Crew Roster and Records with AFSCs and skill levels

Table 3-5
Decision Analysis

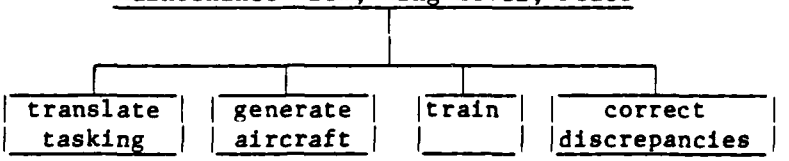
Maintenance View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
6. What is the best allocation of maintenance personnel for the coming week?	Current Sortie generation capbility Tail numbers of current available operational aircraft Take off times for required aircraft Expected duration of flight Aircraft that are NMCM by tail number Components in repair Components requiring repair ETICS Aircraft that are NMCS or NMCB (listing of MICAP items by aircraft, due in date) Time needed to turn aircraft Reconfiguration time Service time Refueling time(truck, in-shelter, hot pit) Munition and chaff loading times Repacking chute Maintenance checkout time (by AGS specialists) Post-flight Pre-flight	Daily Standup and briefings in Operations and Maintenance Job Control Boards Annual Sortie Generation Contract TCTOs Technical Orders Maintenance Personnel Rosters Maintenance Data Collection Record

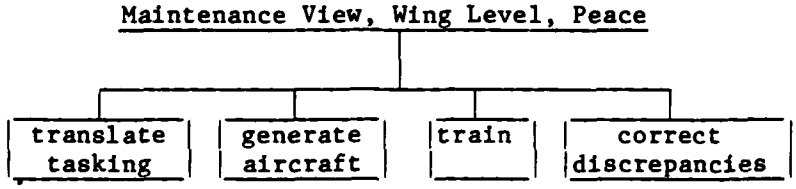
Table 3-5
Decision Analysis

Maintenance View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
6. What is the best allocation of maintenance personnel for the coming week? (Cont'd)	Location and number of deployed aircraft Aircraft scheduled for maintenance Projected phase docks TCTO Programmed Depot Maintenance (PDM) Radar calibration Document review Maintenance crews available, by skill available Load crews Flight crews AGS maintenance crews AGS flight line supervisors EOR crew Fuel crews Munitions assembly crews	

Table 3-5
Decision Analysis

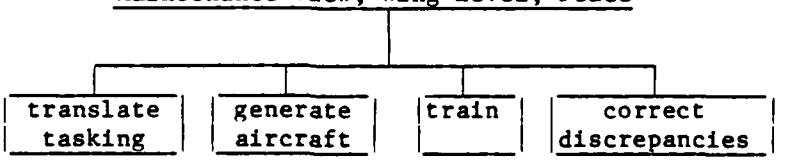


QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
7. What is the effect of tasking on the expected annual and quarterly contract for sortie production?	Expected changes in generation capabilities, environment, or alert tasking	Weekly, monthly, quarterly, semi-annual, annual flying program
	Aircraft model changes/ modifications	Tasking commitments
	Daily flying goal as a percent of the expected FMC rate	Skill levels within AFSCs
	Maintenance crews available Flight crews Load crews Fuel crews Munitions assembly and distribution crews Shop crews	
	Expected sortie loss due to weather	
	Total sorties maintenance can generate per AMB per day over month or year	

(Boxed information is not within scope of AFIRMS)

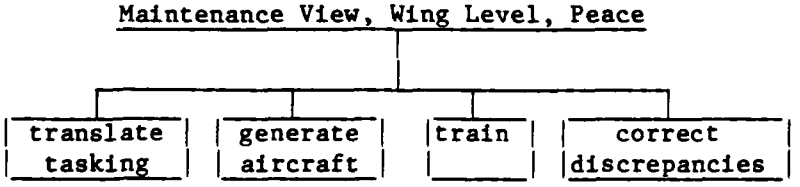
Table 3-5
Decision Analysis

Maintenance View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Generate Aircraft		
1. How many aircraft can be generated for the next schedule?	Aircraft required for next schedule Code 1 aircraft available Code 2/Code 3 aircraft that can be repaired for next schedule Time needed to repair each aircraft Current repair status of critical systems Scheduled maintenance requirements Alternatives to satisfy schedule Commit spare aircraft Change shop crew schedule Cancel non-flying commitment of FMC aircraft Delay scheduled maintenance Status information on AGE Location Quantity Condition Status of vehicles General purpose Tugs Fuel trucks	Component repair status Availability of parts or assemblies from bench stocks and Base Supply Condition Code reported by specialist or crew chief Daily Standups and other briefings

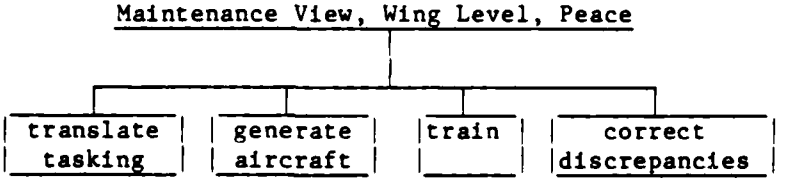
Table 3-5
Decision Analysis



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Generate Aircraft		
2. Is the scheduled aircraft ready for launch?	Status of system discrepancies Airframe Engine Consumables Avionics Hydraulics systems Electrical systems Power control Fuel system Landing gear Minimal Environment System	Aircraft Maintenance Records, Forms 781 Job Control Boards AMB Scheduling Boards
	Configuration of aircraft compared to configuration required on flight schedule	
	Pilot acceptance of aircraft	
	Status of End-of-Runway check	
	Availability and condition of spare aircraft	
3. Can returned aircraft be turned for next take off?	Condition code of aircraft reported by pilot before landing	Pilot condition code report
	Time of next take off	Specialist system problem diagnosis

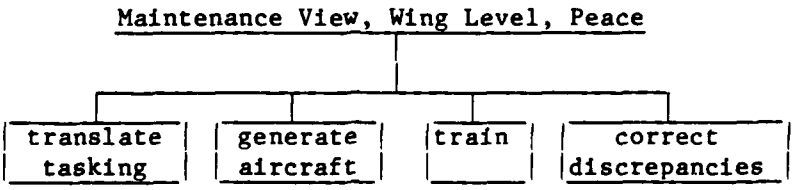
Table 3-5
Decision Analysis

Maintenance View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Generate Aircraft		
3. Can returned aircraft be turned for next take off (Cont'd)	Time required to correct discrepancies Condition code, system needing diagnosis Availability of personnel required to diagnose and correct problem	Condition Code reported by specialist or crew chief Parts or assemblies from bench stocks and base supply
	Availability of required parts	
	Availability of part from AMB bench stock, assembly from CRS, or part from base supply	
	Time required to service aircraft	
	Present configuration compared to configuration required for next take off	
	Munitions, TRAP, fuel, crews in TABVEE	
	Limitations caused by allocation of resources to service transient aircraft, e.g., Ample Gain, MAC, COB	
	Location of arriving transient aircraft and service areas available	

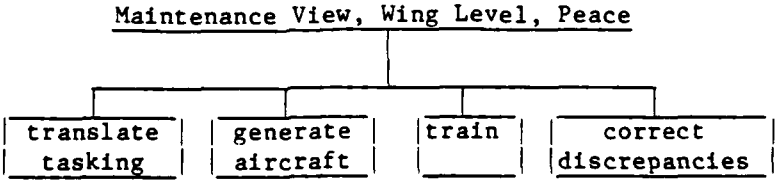
Table 3-5
Decision Analysis



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Train		
1. What are the training objectives?	Current personnel proficiency levels	Qualifications for each AFSC skill level
	Proficiency level when personnel entered squadron	Maintenance personnel and training records
	Number of maintenance personnel necessary to support sortie requirements	Maintenance Analysis reports and studies
	Skill requirements as affected by surge procedures on flight line and in shops	
	Expected personnel rotation	
	Priority training requirements	
2. What is the training schedule for quarter/month/week?	FTD availability	Monthly training summary
	Load Standardization Crew availability	FTD allotments
	Expected changes in crew assignment	Weapons Load Training availability
	Formal training hours available as restricted by flying schedule and deployments	Correspondence course availability
	Skill impacts on repair rates and sortie generation rate	Maintenance Schedules
	Effect of evaluation and testing in the work center on sortie schedule and goal	Personnel roster with DEROS
		Manpower utilization rates

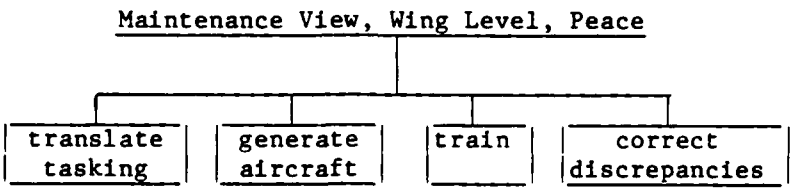
Table 3-5
Decision Analysis

Maintenance View, Wing Level, Peace



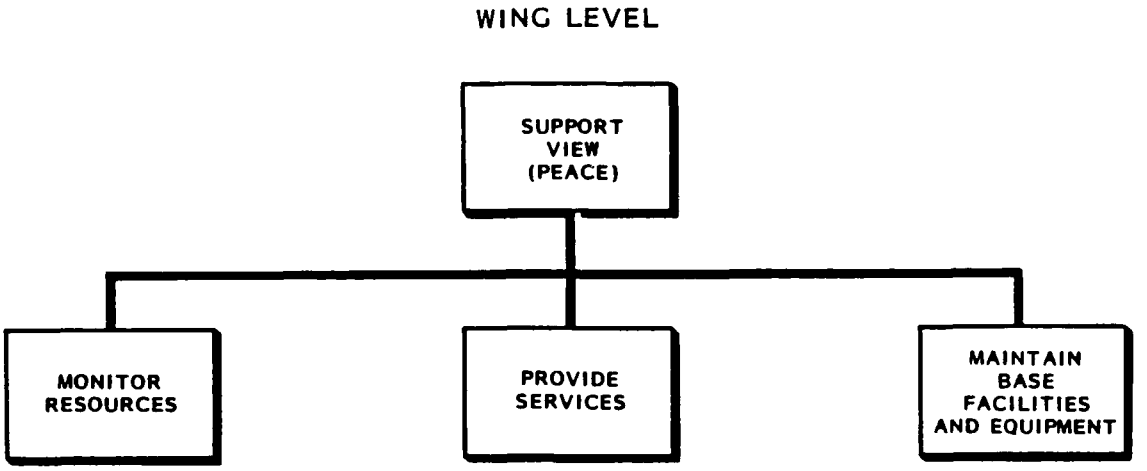
QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Train		
3. Do individuals meet performance standards?	Results of evaluations, certifications, and written testing accomplished by maintenance instructors	Personnel performance reports
Correct Discrepancies		
1. What is current and projected workload?	Maintenance priority 1 or 2 components in shop	Repair records
		Job Control Boards
	Critical priority 3 components required for today's flight schedule	Status and required parts recorded on AFTO Form 349
	DIFM Program critical items	
	Number and type of components-in-work (INW), awaiting maintenance (AWM), awaiting parts (AWP), and expended	
	Aircraft systems arranged by repair time duration, MTBF, MTMA, malfunction	
2. What will degrade repair performance?	EMS, CRS specialists assigned for dispatch to flightline	CTK, TMDE and tool inventories
	Tools or equipment scheduled for maintenance or calibration	Calibration requirements from Technical Orders
	Calibration requirements of precision measurement equipment (PME) and test, measurement and diagnostic equipment (TMDE)	
	Inventory requirements for component tool kits (CTKs) and special tools	

Table 3-5
Decision Analysis



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Correct Discrepancies		
3. Is the repair process satisfactory?	Shop performance compared to Technical Order (TO)	Weekly Equipment Utilization Schedule
	Technical Order requirements for bench checks	AFTO Form 350 work orders with priority from originating shop or Job Control
	Parts availability from supply	Work completion documented on AFTO Form 350 and in MMICS
	Location of finished components ready to be returned to supply	Requested supplies recorded on AF Form 2413
	Availability and number of adequate supervisors	Maintenance Data Collection Record, AFTO Form 349
	Qualifications of specialists covered in Job Proficiency Guides (JPG)	
	Status of completed work Properly inspected Documented Reported to Job Control	
	Major component repair times-record of time in, time out	

3.3.6 Support View, Wing Level Peace



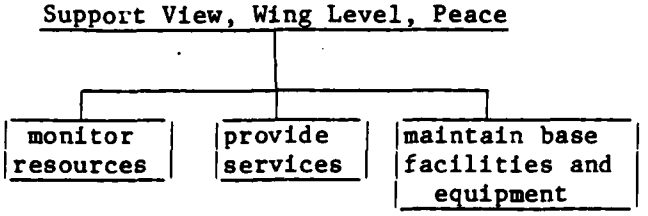
The support organizations addressed at the Wing level are Resource Management, Combat Support, and Base Operations. The main support concern is the provision of services, facilities, and equipment needed to sustain operations and to survive.

Munitions, fuels, vehicles, and supplies are monitored for indications of drawdowns, malpositioning or imbalanced allocation. Support must continue for the rigorous training schedule while retaining capability for combat and providing resources to COBs.

Assemblies for munitions are critical aircraft generation resources. Their location in NATO and the components needed to build up rounds to respond to the tasked configuration are concerns of resource management and supply. Adequate whole rounds must be ready to respond to any combat tasking.

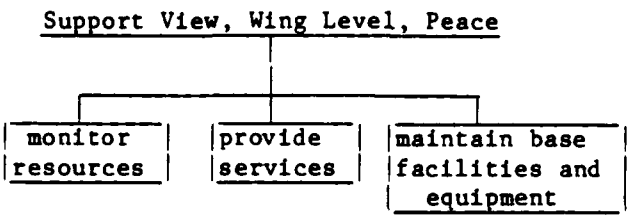
Readiness monitoring centers track critical sustaining and surviving resources. Consumables and war stocks are closely watched to allow lead time for resupply from the logistics pipeline.

Table 3-6
Decision Analysis



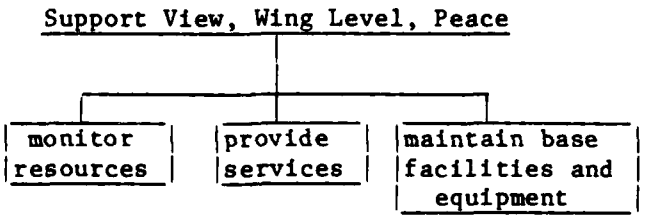
QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Monitor Resources		
1. Are munitions requirements satisfied?	Operational whole rounds available to support tasking and generation schedule (number per aircraft per sortie) Capacity of principal and alternate storage facilities Munitions augmentation Location Quantity Transportation	Quarterly munitions supply listing Munitions issue and receipt documents Wing Command Post boards
2. Are fuel requirements satisfied?	Availability of POL Fuel-JP4, MOGAS, diesel Capacity of pipe system and trucking onto base Distribution capacity on base by pipe and truck Engine oils Hydraulic fluid	Daily fuel inventory Monthly fuel gain/loss Projected fuel consumption
3. Are critical supplies available to support tasking?	Supply status Aircraft repair parts below reorder point, duration, part name Engines, LRUs, tires Rapid runway repair patch kits TRAP-quantity and condition MERS, TERS Medical	Supply status reports WRM, WRSK, BLSS listings MICAP Readiness Boards Part number directory/listing

Table 3-6
Decision Analysis



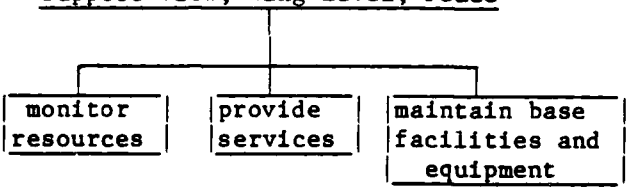
QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Monitor Resources		
3. Are critical supplies available to support tasking? (Cont'd)	CBW individual and decontamination equipment Critical WRM items COB supplies Water Food Munitions AGE Fuel Status of MICAP supplies Number of aircraft NMCS and NMCB, duration, part name, backorder status, date Parts requests for critical system assemblies Availability of substitutes for shortfalls in aircraft components Through lateral support From a host nation unit From cannibalization MICAP items available from WRM Base defense weapons, equipment, and ammunition	

Table 3-6
Decision Analysis



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Provide Services		
1. What is the availability of critical base support services?	Number of days supply items have been on backorder Latest status and date of status Date of message and phone follow-ups Bench stock effectiveness by commodity area Base transportation limiting factors Trucks-fuel, flatbeds, pick-ups, vans and fire/crash trucks MHE-fork lifts Runway sweepers and snow plows Base passenger transportation, school buses Number of vehicles deadlined for parts (VDP) Resource and transportation limiting factors for unit deployment MAC airlift-total capacity, number of sorties by aircraft type Trucking-total capacity, number of tons per day Rail capacity per day Packing materials, containers, pallets, boxes,chains	Resources under control of Base Commander

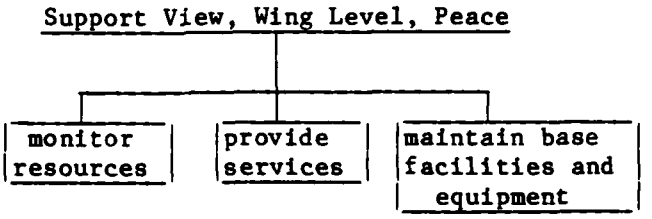
Table 3-6
Decision Analysis
Support View, Wing Level, Peace



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Provide Services		
1. What is the availability of critical base support services? (Cont'd)	Number of Security Police and Special Investigative personnel available for contigency actions and base defense	
	Base defense capability Small arms, machine guns, vehicles Air defense batteries Positioning of weapons Perimeter fence, obstacles	
	Capability of military personnel to accomplish current jobs of civilian personnel during crisis	
	Evacuation plans for non-combatants	
	Availability of food service Dining facilities Personnel and equipment Food storage Emergency rations	
	Availability of hospital/ medical services Primary care Augmented emergency facilities	

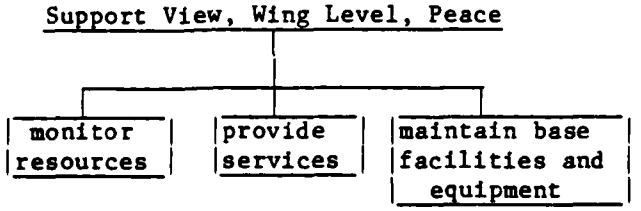
(Boxed information is not within scope of AFIRMS)

Table 3-6
Decision Analysis



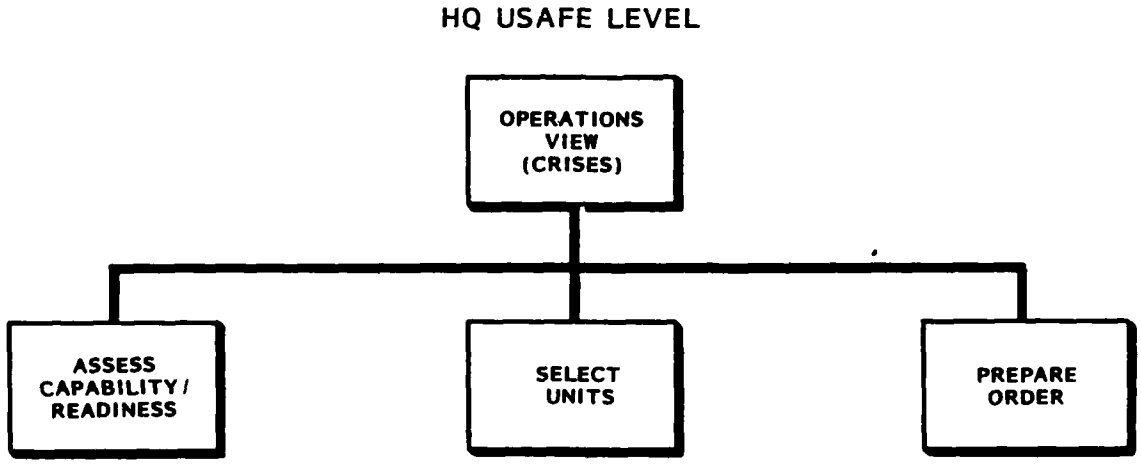
QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Maintain Base Facilities and Equipment		
1. Which critical facilities require maintenance?	Condition of taxiways, runways, ramps, and barriers Areas clear of FOD, snow, and ice Surface cracks Obstructions Adequate weight capacity Status of NAVAIDS and ATC communications Condition of maintenance shops, and Wing and Squadron command posts Status of commercial electrical power and water and emergency back-up systems Condition of Officers' and Airmen's Quarters Building and road maintenance Condition of roads Work order backlog Repair equipment Condition of munitions, fuel, and supply storage facilities	Program Funding Civil Engineering maintenance records and inspections

Table 3-6
Decision Analysis



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Maintain Base Facilities and Equipment		
1. Which critical facilities require maintenance? (Cont'd)	Condition of each TABVEE Roof Doors Winch Refueler Power unit Communications Lights	
	Condition of chemical/biological equipment and facilities Decontamination equipment Filtration equipment	
2. Can the facilities critical to tasking be maintained?	Availability of Prime Beef units	Prime Beef priorities
	Rapid runway repair capability	Demonstrated performance of rapid runway repair teams

3.3.7 Operations View, HQ USAFE, Crises

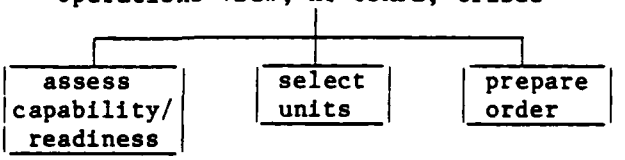


HQ USAFE is primarily responsible for provisioning and supporting units in a crisis situation. The Operations Support Center (OSC) becomes the monitoring facility for resource movement, unit deployment, augmentation, and CONUS resupply. The OSC also provides supporting forces such as SAC tankers, MAC airlift, and Search and Rescue.

HQ USAFE ensures the availability of mission ready units to respond to NATO tasking. HQ USAFE detects and responds to unit shortfalls by selecting and positioning augmentation. When deployment is required, Logistics determines resource supportability and works out short term plans and concepts.

Table 3-7
Decision Analysis

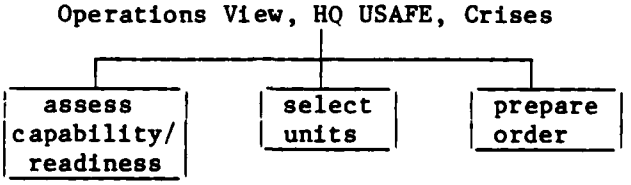
Operations View, HO USAFE, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Assess Capability/Readiness		
1. Which resources are needed at MOBs, COBs, or FOLs to perform mission or tasking?	Shortages/overages of UTCs, equipment, supplies available	Tasking
		Intelligence reports
	Non-commited resources; time expected to be MR	OSC resource status boards
		Wing requests for augmentation
	Expected resupply response (resource location and time expected to be MR)	Operations Plans and Annexes
		WMP
	Sustainability of required sorties in days at MOB, COB, FOL	Situation Reports
		Orders; Execution Times
	Sortie capability with current resources	OPSTAT and DOPSUM Reports
		Attritions
		Wartime Aircraft Activity
2. What corrective actions are necessary?	Priority of resources and most critical needs to support selected units	Tasking
		Resource Status Reports from Tasked Wings
	Most effective augmentation and resupply of resources to units	Situation Reports
		Intelligence Reports

Table 3-7
Decision Analysis

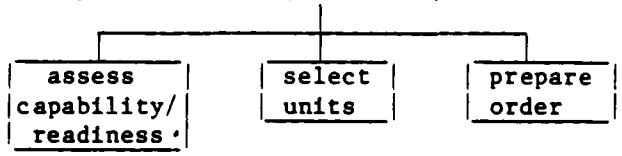
Operations View, HQ USAFE, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Assess Capabilities/Readiness		
2. What corrective actions are necessary? (Cont'd)	Status of Critical resources expressed in terms of impact on sortie generation capability: Aircraft Aircrews Maintenance crews, equipment Weapons loaders Munitions Fuel Runway repair Sustenance resources (critical) Facilities and equipment survivability	Movement Reports and Status of Carriers LOC Status
	Quantity, condition, location, and time until augmented, resupplied, and redistributed resources can be MR	

Table 3-7
Decision Analysis

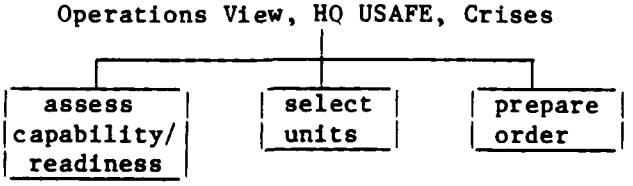
Operations View, HQ USAFE, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Select Unit		
1. Which units will respond to tasking?	Match of units to tasking by mission, response times, squadron capability	Tasking Requirements
	Matched unit locations	Designed Operational Capability
	Mission capability of units Number of aircraft ready to respond Number of aircrews MR Number of maintenance crews available	UNITREP, OPSTAT, DOPSUM Situation Reports Operations Plans SAC Tanker Allocation
	Number of sorties units can sustain over time SCL, whole rounds built Pounds of fuel (per aircraft per day)	Arrival times/departure Times; MAC Flow and Staging Airfields Report
	Air refueling support available. Number and condition of SAC tankers	MAC Commitments and responses to operations; priorities, carriers, locations and available capacity; staging; schedules; sustaining capability
	Airlift support available (MAC capacity)	
	Condition of COB, FOL Availability Capacity Parking Spaces Ramp Space	

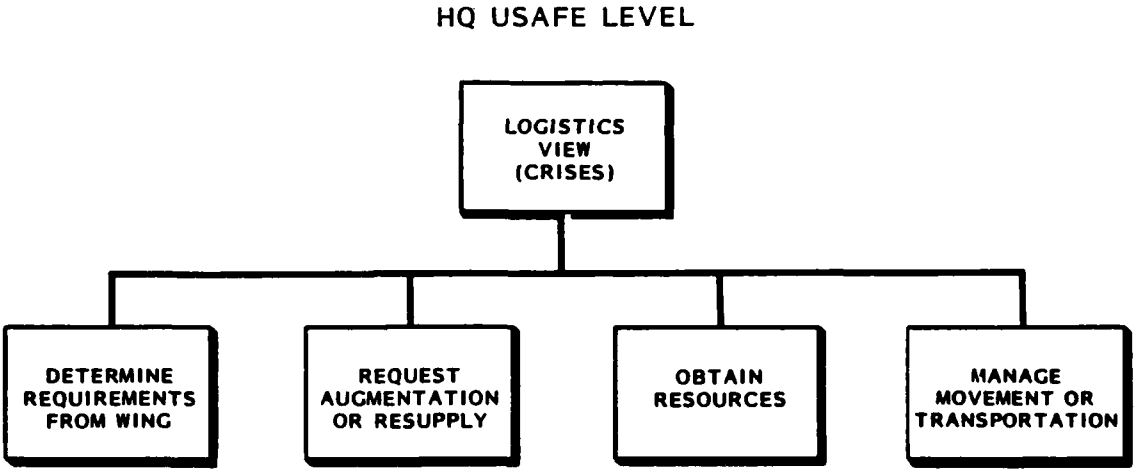
Table 3-7
Decision Analysis

Operations View, HQ USAFE, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Select Unit		
1. Which units will respond to tasking? (Cont'd)	Deployment shortfalls Airlift capacity needed vs. capacity available and type UTC shortage per aircraft (PAA) or (UE) Fuel available for sustaining capability (number of sorties) Capability to make closure (over or under in hours and minutes)	
Prepare Order		
1. What is unit response to tasking?	Acknowledgement of available operational resources ready to respond	Order (Contingency, War) Flying Schedule Exercise Start-up Order Contingency Plan

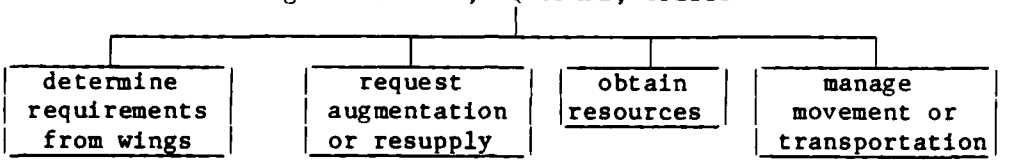
3.3.8 Logistics View, HQ USAFE, Crises



Logistics provides support in crises by ensuring that adequate resources are available to enable units to sustain and survive. Logistics determines the support needed for the number and type of aircraft and munitions. If the units employ in place, Logistics must ensure that there are adequate resources, either stored or in the supply pipeline, to sustain the base or location. If units must deploy, Logistics has to establish lines of communication for resources that have to be transported and coordinate with MAC and other transportation agencies to move unit support resources. Receiving base facilities must be identified and confirmed. Logistics manages movement of malpositioned resources among MOBs, COBs, and FOLs as well as support augmentation that may be required. Logistics is required to adjust preplanned UTCs and packages to meet variable tasking requirements of crises.

Table 3-8
Decision Analysis

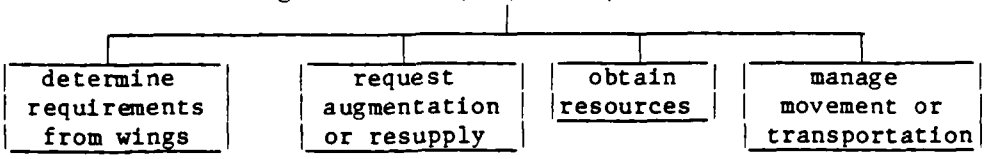
Logistics View, HQ USAFE, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Determine Requirements from Wings		
1. Which resources are needed to support sorties required?	Sortie essential resources ordered per aircraft and by mission type	USAFE beddown TPFDD
		Squadrons assigned
	WRM projected consumption or usage rates (daily, weekly, monthly, yearly)	Locations for wartime operations determined
		Type of aircraft assigned
	Number of sorties that can be generated over time by type, aircraft, squadron	Sortie duration and rates assigned; Wartime Aircraft Activity
2. Where should resources be placed?	Location of aircraft and support services required- equipment, vehicles, fuel, munitions	Flying hours assigned
		Attrition factors determined
	Probabilities of resource attrition given tasking or mission - dates of need, times of need, locations	Wartime Consumables Distribution Objective (WCDO)
		Wartime Readiness Material
	Available storage capacity and facility type in USAFE, TFWs, and COBs of host nation	Expenditure Per Sortie Factor
		Political situation

Table 3-8
Decision Analysis

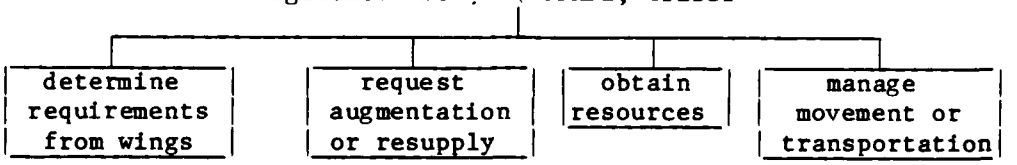
Logistics View, HQ USAFE, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Request Augmentation or Resupply		
1. Which resources should be augmented?	Shortfalls in resources Measured against plan Measured against actual taskings	Locations for wartime operations determined
		Wartime Aircraft Activity
	Time frame when augmentation is needed	Wing resource status (quantity, condition, location)
	Augmentation that meets time restrictions that are available in-theater and expected CONUS arrivals, ordered by resource and time	War and Mobilization Plan 4
		War Plans Additive Requirements Report (WPARR)
Obtain Resources		
1. Which shortfalls need attention?	Thresholds and limiting factors Specific shortfalls and reasons, ordered by aircraft and squadron	Base Status Reports and requests for resources.
		Base Supply Reports and inventories
	Resources that are low, unavailable, expended, or not in location needed	
	Priorities or critical needs	
	Indicators signifying below thresholds to generate sorties, ordered by aircraft and squadron	

Table 3-8
Decision Analysis

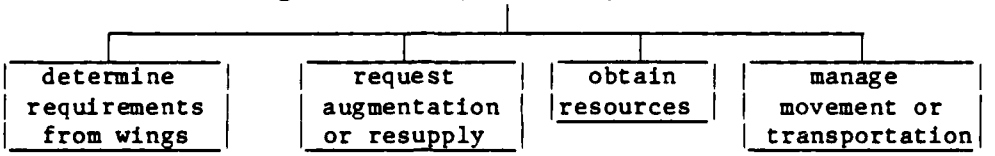
Logistics View, HQ USAFE, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Obtain Resources		
2. What resource requirement changes and shortfalls affect current plans and tasking?	Readiness and sustenance profiles of existing COB, MOB, FOL resources (WRM, fuel, vehicles, services)	Unit tasking
	Status (quantity, condition, amount)	Base Resource inventories, locations, shortfalls
	Location of aircraft (PAA) and support UTC	UNITREP
	Number and type of sorties that must be generated-time in hours/days that aircraft must sustain given tasking or plan	WMP 3,4,5
	Critical limiting factors and reasons tasking are affected	UTE Rates
		Table of Authorization
		WRM
		WAA
		WPARR
3. Which plans must be altered or requirements changed for coming fiscal years?	Number of sorties that can be generated with present resources by aircraft and type of sortie over time	OPLANS, sortie rates
		UTE Rates
4. What is the effect of changing Wing allocations or distribution?	Resource shortfalls (by unit) estimated in ability to perform tasking	WAA
		WCDO

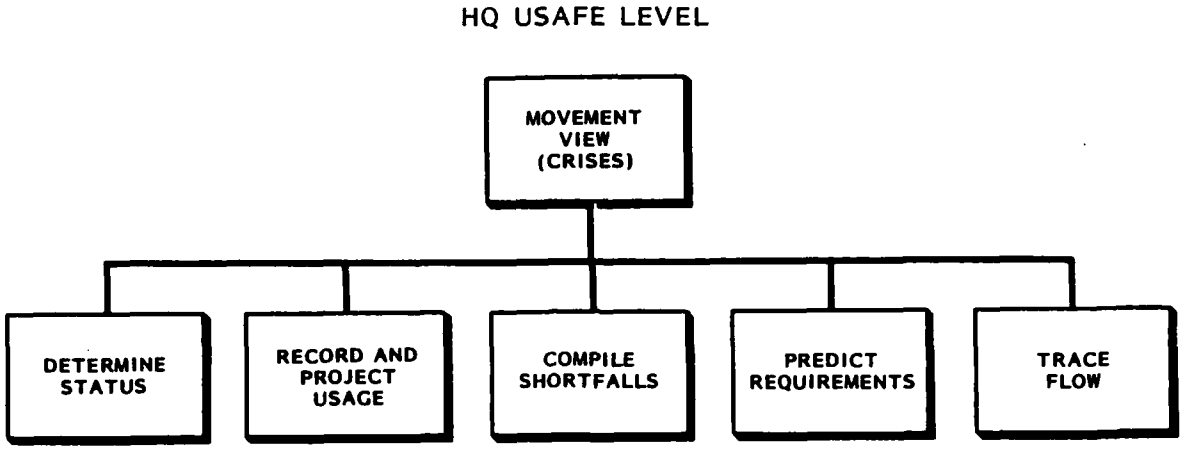
Table 3-8
Decision Analysis

Logistics View, HQ USAFE, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Manage Movement or Transportation		
1. Which resources can be resupplied to meet taskings?	Enroute resources Resource type Quantity Location Time from point of intended use	MAC flow and schedule; load priorities; status of LOCs OSC Status Reports OPSTAT, DOPSUM
	Expected port arrival times Resource type Quantities Condition TOA Location Transported by air, land or sea	
	Shortfalls, by type, capacity and time, of transportation in USAFE to meet movement requirements	
	Deviations from expected delivery time	

3.3.9 Movement View, HQ USAFE Crises

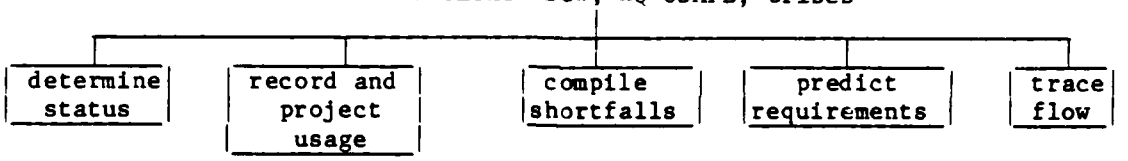


During crises HQ USAFE rapidly assesses in place resources near the operating location. Reserved stocks, prepositioned equipment, and supplies located at or near the location of the tasked unit(s) are assessed for acceptability and capability to support the tasking. Detected shortfalls are adjusted, augmented or resupplied. Movement entails getting the tasked resources to the operating location in time to respond to the threat.

Ports, land routes, and MAC flow in USAFE are critical to sustaining operations. Diversion to different channels, requirements, alternative routes and carriers, and current location and condition of theater resources are critical to Operations decisions about capability to respond to tasking. Mission plans and tactics rely on the availability of required munitions, fuel, facilities, personnel, and equipment. All lines of communication that can support a crisis must be monitored.

Table 3-9
Decision Analysis

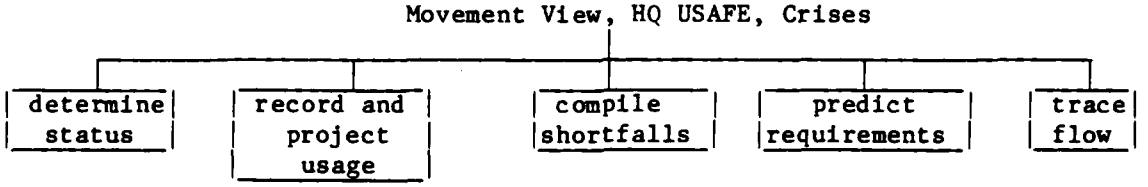
Movement View, HQ USAFE, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Determine Status		
1. Can the resources be moved?	MAC, MSC and common carrier support available	Location, quantity, capacity and condition of current MAC carriers
	Host nation capacity and availability	Host nation commitment
		LOCs available and committed, condition
		Movement tables from TOAs
Record and Project Usage		
1. What support is needed to ensure missions or taskings are performed?	Tons, weight, throughput capacity required; uncommitted, type of load available	Transportation capacity usage rates per event and over time
	Match of available carriers to requirements (location, cargo, type, capacity, time to intended use)	
	Shortfalls by type of load, capacity, time, location	

Table 3-9
Decision Analysis

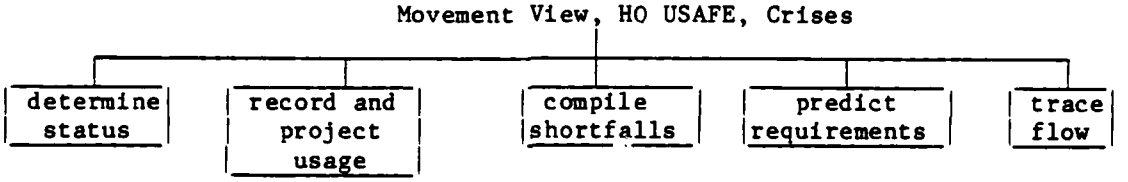
Movement View, HQ USAFE, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Compile Shortfalls		
1. What shortfalls are critical (actuals, projections)?	Impact of shortfalls on Wings/Squadrons Downtimes resulting Reduction in sorties (quantity, duration) Failure to meet tasking (sorties deficient) Inability to generate and sustain (cut-off day, hour) Critical skills affected (type, number, shortage)	Allowable lead times to obtain resources to meet taskings Fuel, Maintenance, Supply, aircraft, critical skills (Current quantities, conditions, locations)
Predict Requirements		
1. What must be moved?	Location and quantity of existing resources Major equipment (fighter aircraft) Aircrews (fighter) Aircraft (airlift carriers) Crews (airlift staged) Ground equipment Fueling capability Maintenance support Major UTC support packages Munitions (mix and full rounds) Status of resources to be moved Quantity Location Time from point of intended use Time from MOB, COB, FOL by air or land Condition	Predictions for resupply and augmentation Resource movement impacts on ability to sustain sortie generation

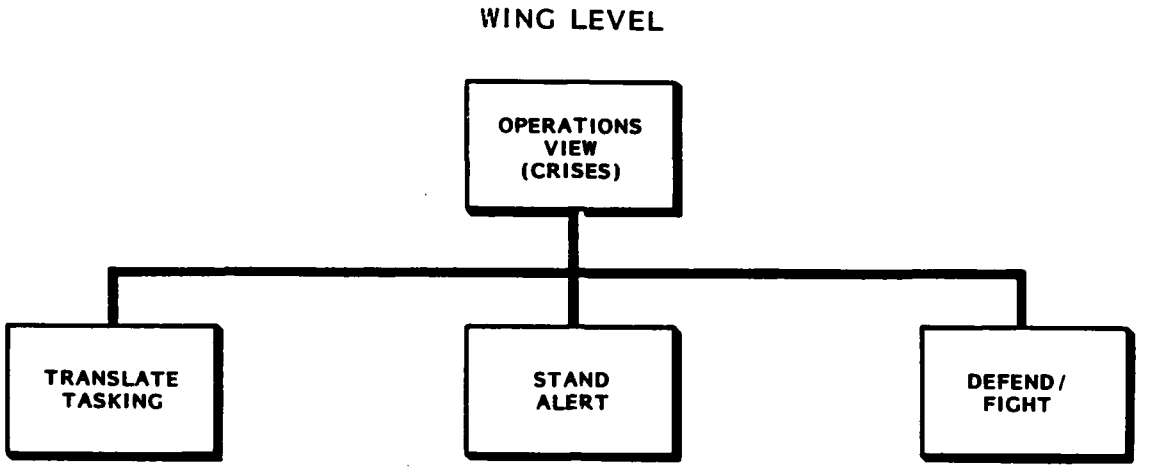
Table 3-9
Decision Analysis

Movement View, HO USAFE, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Trace Flow		
1. What alternate transportation can be used?	Available carriers Typed Required Quantity Capacity Location Time to point of use Distance to delivery point of available carriers Movement capacity available by type, tonnage, weight, size, or required metric	(MAC) UNITREP MACARMS CRAF Status (Current quantities, conditions, locations) ANG Status (Current quantities, conditions, locations) AVRES Status U.S. Army Transportation NATO Armed Services Support
2. What alternate routes can be used?	Optional uncommitted routes Location Time required for delivery Capacity that can be accommodated Distance Tonnage Type of load	USAFE LOCs U.S. Army transportation reports Condition of roads and bridges Condition of alternate airfields

3.3.10 Operations, Wing Level, Crises



Operations responds to tasking specified by SOCs and ATOCs. Operations' decisions result in sequencing aircraft for take off times to reach targets or tracks, determining feasible turn patterns, and sequencing aircraft after recovering initial take offs.

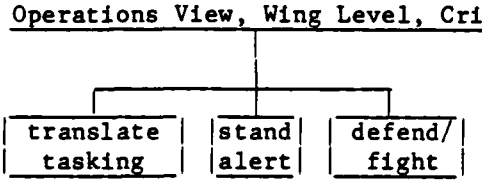
Predetermined objectives and tasking limit initial decision making to the aircraft and aircrews operationally combat ready to take off. Required response time limits the time for deliberation.

Many daily peacetime Operations decisions can continue in crises; for example, if the crisis is protracted, sortie schedules and their underlying decisions and assessments proceed. If the crisis involves base vulnerability, decisions about recovery from battle damage and alternative facilities must be made. In extreme conditions, base defenses and autonomous operations must be implemented.

Readiness decisions and initiatives rely on continuous capability assessment. Predicted shortfalls and projected consumption of resources that limit sortie production must be known after each mission.

Table 3-10
Decision Analysis

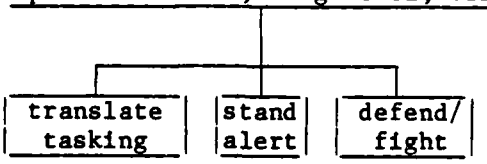
Operations View, Wing Level, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
1. Is the ATO feasible?	TOTs, distance to target, weapons, configurations, mission priority	SOC and ATOC taskings- ATO, ATM and ABO
	Generation flow plan	Assigned resources (people, equipment, vehicles)
	Availability of aircrews	Tankers assigned by ATOC
	Availability of aircraft	
	Turn times with and w/o configuration change	
	Availability of load crews, fuel trucks, in-shelter refuelers, air-to-air refueling (AAR)	
	Availability of munitions	
2. What is the daily flying schedule?	Number of sorties to be flown Tail numbers Maintenance personnel available Tanker availability Configuration Duration	Daily Standups and briefings in Operations and Maintenance Job Control Boards Air Tasking Order
	Generation pattern for each squadron for each day	Air Tasking Message
	Number of aircraft maintenance can support and spares	Daily Ops Order

Table 3-10
Decision Analysis

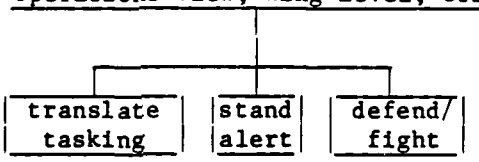
Operations View, Wing Level, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
3. Which aircrews are to be assigned to flying schedule?	Experience of aircrews Name Type of sortie, date, total hours, GCC level reached Type aircraft flown, hours Position (FL, SOF, IP, RIPI-6, Flight Commander) Time in squadron, remaining time Combat hours, location, tour(s) TAF experience (maneuvers, sorties, aircraft type, weather category, hours in fighter type aircraft) USAFE experience, weather category	Squadron Flying Boards Training resource allotment by ATOC Wing and Squadron aircrew flight records
	Current location of aircrews Location (if off-site) Time to return Reason for deployment	
	Deployment commitments Date of departure and return Location Reason	
	Aircrews qualified for alert Last duty completed Next due duty date	
	Pilots qualified for FL, SOF	

Table 3-10
Decision Analysis

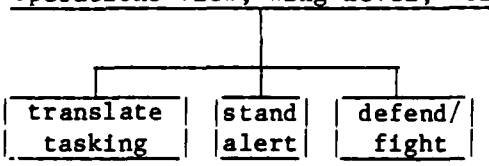
Operations View, Wing Level, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
4. Which weapons are required?	Intelligence on target and enemy defenses	SOC and ATOC taskings-ATO, ATM
	Munitions availability by component	Quarterly munitions supply listing
	Delivery tactics, weapon characteristics, and single strike probability of destruction (SSPD)	Target characteristics Weekly/Daily Aircraft Flight Schedule
	Aircrews proficient in delivery	
	Turn times	
5. What are possible limitations to accomplishment of tasking?	Current and projected shortages Qualified aircrews Aircraft Maintenance personnel POL Parts Munitions	Command Post Briefings Daily Wing Standup Briefings Weekly/Daily Aircraft Flight Schedule Squadron Flying Boards
	Number of sorties present resources can sustain, duration of each, and number of remaining days or hours to depletion of resources	Job Control Boards

Table 3-10
Decision Analysis

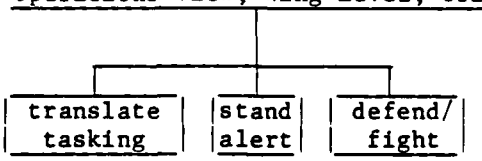
Operations View, Wing Level, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Stand Alert		
1. Which aircrews are qualified for alert duty?	Aircrew experience(special qualification for alert duty)	Ready aircraft and aircrews
2. Are aircrews adequately briefed and aware of mission?	Aircrew accomplishment of target study and mission planning	Alert tasking, including potential target, ROE, response time, authentication procedures
	Aircrew briefings on the rules of engagement	Target intelligence
		Tactics and delivery maneuvers
		Weather forecasts
		Enroute and target charts
3. Are aircraft properly prepared?	Availability of qualified maintenance personnel	TABVEE status
	Availability of operational support equipment	
	Aircraft configuration	

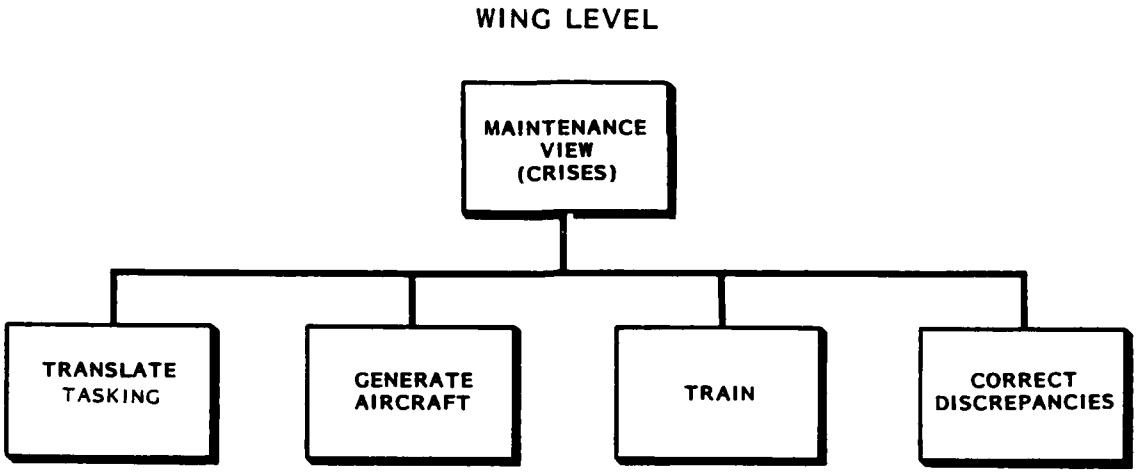
Table 3-10
Decision Analysis

Operations View, Wing Level, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Defend/Fight		
1. Have the missions been properly planned?	Intelligence on target vulnerability and area defenses	ATO, ATM
		Intelligence Reports
	Effects of weather on tactics and weapon delivery	Wing Command Post boards
	Coordination procedures, frequencies, call signs, signals, locations	
	Location of Forward Line of Troops (FLOT) and Forward Edge of Battle Area (FEBA)	
2. Are aircraft properly serviced?	Condition of aircraft systems, e.g., engine, hydraulics, controls, landing gear, weapons delivery system, avionics, flight surfaces	Aircraft Maintenance Records, Forms 781
		Aircraft Battle Damage Repair (ABDR) guidelines
		Aircraft quick checklist
3. Can recoverd aircraft be turned to meet next take off?	Condition Code of aircraft	Airborne pilot report of Condition Code
	Maintenance required on aircraft and time to repair	Maintenance Job Control Boards
	Production supervisor's TABVEE assignment	

3.3.11 Maintenance, Wing Level, Crises

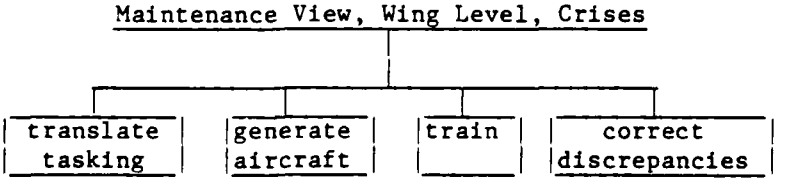


Maintenance is dedicated to generating aircraft to support Operations regardless of peace or crises. In crises, configuring the aircraft to meet the daily generation schedule is paramount. Munitions loaders, munitions, loading equipment, fuel, and crew chiefs are essential to readying the aircraft. Available shop personnel and base personnel augment flight line crews and munitions assemblers to ensure that aircraft are generated and turned.

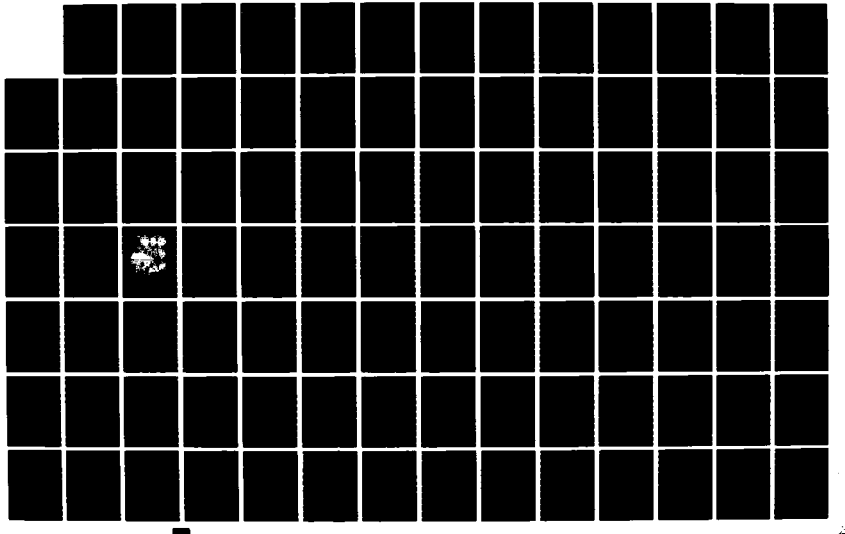
If deployment is required, maintenance must be worked and planned so that efficient use of crews deploying and remaining on base is ensured. Correction of discrepancies and scheduled maintenance must continue with added possible damage repair and munitions maintenance.

Table 3-11
Decision Analysis

Maintenance View, Wing Level, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
1. Can the tasked units respond?	TOTs, weapons, configurations, mission priority	MA generation records, sortie goals, accomplishments
	Units/aircraft ready against known tasking requirements	TACEVAL, ORI, and exercise performance
	Turn times with and w/o configuration changes	Job Control Boards
	Launch prohibitors Spares Parts Maintenance personnel Engines Munitions Choke points Runway obstacles(snow, ice, broken or crashed aircraft, or vehicle) POL	Assigned resources (people, equipment, vehicles) Break Rates MICAP status Supply effectiveness
	Performance profile of maintenance crews charted to show effect of peaks and lows in generation rates	
	Time and number of sorties until current available resources will run out or be unable to sustain the tasking, stipulating which resources will be expended or drawn down	



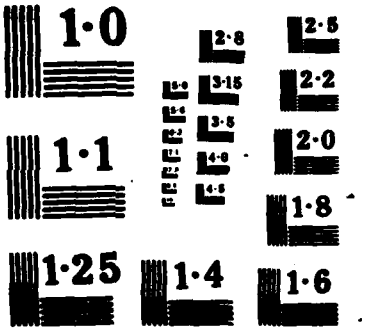

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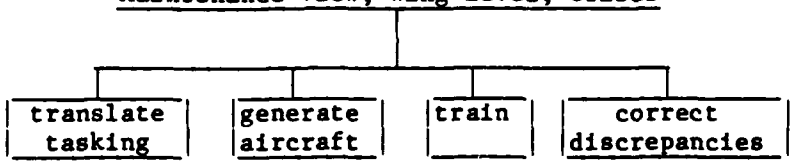
Table 3-11
Decision Analysis

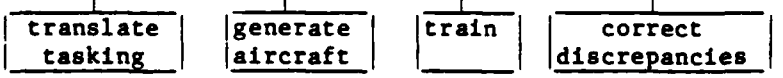
Maintenance View, Wing Level, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
2. What resources are required?	Generation requirements Number of aircraft by squadron Required configuration Number of sorties, type, duration	Maintenance personnel rosters and training records Quarterly/yearly sortie contract
	Maintenance personnel AMB crew chiefs Weapons loaders/crews Shop specialists(in-shop and flightline dispatch)	Maintenance analysis reports
	Projected maintenance attrition rates in sorties	
	Maintenance manhours needed per flying hour-correlation of hours showing skill spread, sortie type, sortie duration	
3. What is the daily flying schedule?	Number of sorties to be flown Tail numbers Maintenance personnel available Configuration Duration	Daily Stand-ups and other briefings AMB Scheduling Boards Command Post Briefings
	Generation pattern for each squadron	
	Number of a/c maintenance can support and spares	

Table 3-11
Decision Analysis

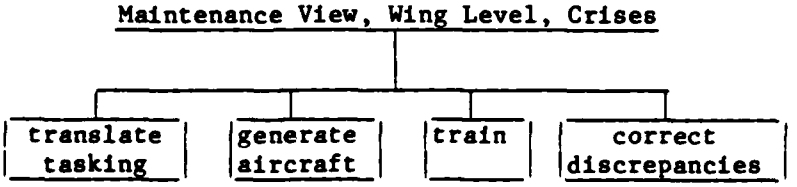
Maintenance View, Wing Level, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Translate Tasking		
4. What is the generation flow plan?	Location of probable choke points Number and priority of aircraft to be hot pit refueled, turned, and uploaded Turn times necessary to meet operations requirements Take off times Taxi times Fuel truck availability (by time) Hot Pit availability Choke points Munitions availability (by time and location) Chaff and drag chute availability	Job Control Boards Assigned resources (people, equipment, vehicles) AMB Scheduling Boards
5. What are the schedules for AGS personnel and weapon assemblers?	Available personnel AFSCs per tail number TABVEE location Name Skill level Availability of augmentees From EMS or CRS From wing resources From base resources Skill levels available Skill levels needed Time needed to train	Maintenance Crew Roster and Records with AFSCs and skill levels

Table 3-11
Decision Analysis

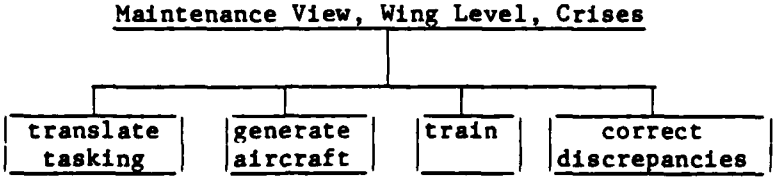
Maintenance View, Wing Level, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Generate Aircraft		
1. How many aircraft can be generated for the next schedule?	Aircraft required for next schedule Code 1 aircraft available Code 2/Code 3 aircraft that can be repaired for next schedule Time needed to repair each aircraft Current repair status of critical systems Scheduled maintenance requirements Alternatives to satisfy schedule Commit spare aircraft Change shop crew schedule Cancel non-flying commitment of FMC aircraft Delay scheduled maintenance Status information on AGE Location Quantity Condition Status of vehicles General purpose Tugs Fuel trucks	Component repair status Availability of parts or assemblies from bench stocks and Base Supply Condition Code reported by specialist or crew chief Command Post Briefings

Table 3-11
Decision Analysis

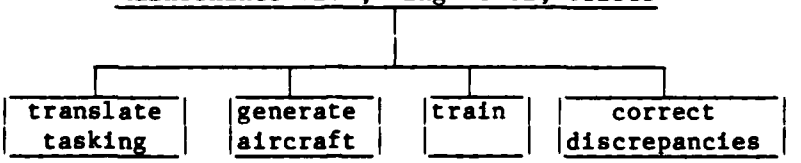
Maintenance View, Wing Level, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Generate Aircraft		
2. Is the scheduled aircraft ready for launch?	Status of system discrepancies Airframe Engine Consumables Avionics Hydraulics systems Electrical systems Power control Fuel system Landing gear Navigation aids Minimal Enviromnent System	Aircraft Maintenance Records, Forms 781 Job Control Boards AMB Scheduling Boards
	Configuration of aircraft compared to configuration required on flight schedule	
	Pilot acceptance of aircraft	
	Status of End-of-Runway check	
	Availability and condition of spare aircraft	

Table 3-11
Decision Analysis

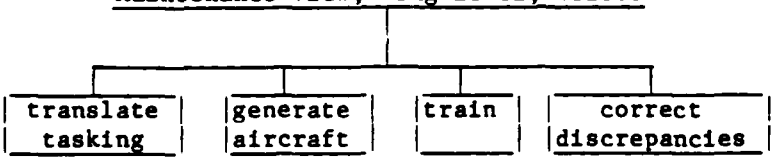
Maintenance View, Wing Level, Crises



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Generate Aircraft		
3. Can returned aircraft be turned for next take off?	Condition code of aircraft reported by pilot before landing	Pilot condition code report
	Time of next take off	Specialist system problem diagnosis
	Time required to correct discrepancies Condition code, system needing diagnosis Availability of personnel required to diagnose problem Availability of required parts	Condition Code reported by specialist or crew chief Parts or assemblies from bench stocks and base supply
	Availability of part from AMB bench stock, assembly from CRS, or part from base supply	
	Time required to service aircraft	
	Present configuration compared to configuration required for next takeoff	
	Munitions, TRAP, fuel, crews in TABVEE	
	Limitations caused by allocation of resources to service transient aircraft, e.g., Ample Gain, MAC, COB	
	Location of arriving transient aircraft and service areas available	

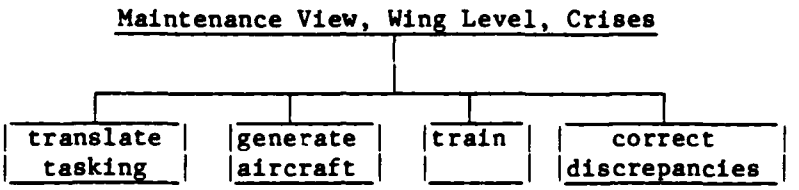
Table 3-11
Decision Analysis

Maintenance View, Wing Level, Crises



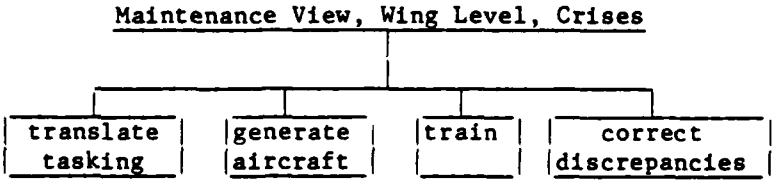
QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Generate Aircraft		
3. Can returned aircraft be turned for next takeoff? (Cont'd)	Maintenance crew casualties	
	Battle damage to aircraft/ shelters	
Train		
1. What are the training objectives?	Number of maintenance personnel necessary to support sortie requirements	Qualifications for each AFSC skill level
		Maintenance personnel and training records
	Skill requirements as affected by crises sortie rates and duration, or crises conditions	Maintenance Analysis products
	Expected personnel rotation	
	Priority training requirements	
2. What is the training schedule for quarter/month/week?	FTD availability	Monthly training summary
	Load Standardization Crew availability	FTD allotments
		Weapons Load Training availability
	Expected changes in crew assignment	
		Correspondence course availability
	Formal training hours available as restricted by flying schedule and deployments	Maintenance Schedules
	Skill impacts on repair rates and sortie generation rate	Personnel roster with DEROS
	Effect of evaluation and testing in the work center on sortie schedule and goal	Manpower utilization rates

Table 3-11
Decision Analysis



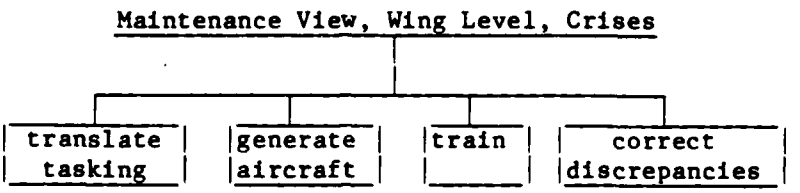
QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Train		
3. Do individuals meet performance standards?	Results of evaluations, certifications, and written testing accomplished by maintenance instructors	Personnel performance reports
Correct Discrepancies		
1. What is current and projected workload?	Maintenance priority 1 or 2 components in shop	Repair records
		Job Control Boards
	Critical priority 3 components required for today's flight schedule	Status and required parts recorded on AFTO Form 349
	DIFM Program critical items	
	Number and type of components in-work (INW), awaiting maintenance (AWM), awaiting parts (AWP), and expended	
	Aircraft systems arranged by repair time duration, MTBF, MTMA, malfunction	

Table 3-11
Decision Analysis



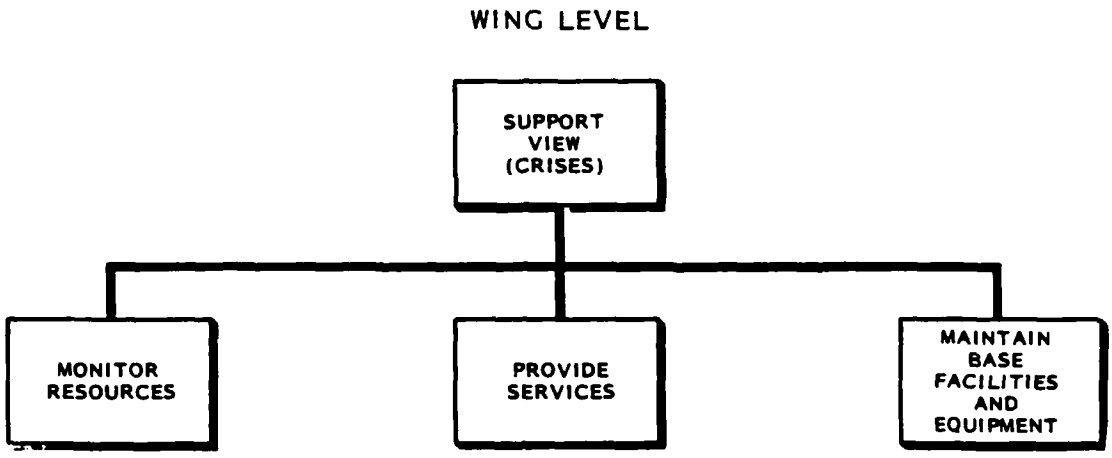
QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Correct Discrepancies		
2. What will degrade repair performance?	EMS, CRS specialists assigned for dispatch to flightline	CTK, TMDE and tool inventories
	Tools or equipment scheduled for maintenance or calibration	Calibration requirements from Technical Orders
	Calibration requirements of precision measurement equipment (PME) and test, measurement and diagnostic equipment (TMDE)	
	Inventory requirements for component tool kits (CTKs) and special tools	
	Personnel casualties	
	Battle damage to facilities	

Table 3-11
Decision Analysis



QUESTIONS TO SUPPORT CRITICAL DECISIONS	INFORMATION REQUIREMENTS TO ANSWER QUESTIONS	DATA CURRENTLY USED TO SUPPORT DECISIONS
Correct Discrepancies		
3. Is the repair process satisfactory?	Shop performance compared to Technical Order (TO)	Weekly Equipment Utilization Schedule
	Technical Order requirements for bench checks	AFTO Form 350 work orders with priority from originating shop or Job Control
	Parts availability from supply	Work completion documented on AFTO Form 350 and in MMICS
	Location of finished components ready to be returned to supply	Requested supplies recorded on AF Form 2413
	Availability and number of adequate supervisors	Maintenance Data Collection Record, AFTO Form 349
	Qualifications of specialists covered in Job Proficiency Guides (JPG)	
	Status of completed work Properly inspected Documented Reported to Job Control	
	Major component repair times-record of time in, time out	

3.3.12 Support, Wing Level, Crises



During crises, the intensified demand for services from Wing support organizations may create a greater need to prioritize available assets and personnel. However, even though the level of effort is probably greater during crises than during peace, the same basic functions are performed. Since the functions are the same, the decision tables for peace and crises will be identical. These tables will not be repeated here. The reader can refer to Section 3.3.6, Support, Wing Level, Peace.

Section 4

SUMMARY AND OBSERVATIONS

4.1 USAFE Characteristics and Concerns

- The time to respond to a threat could be a matter of minutes. The continuous alert contingent in some Wings underscores the proximity to employment.

- The focus in USAFE is on execution -- employment and use of resources to defend and fight. War preparation and planning have priority.

- All USAFE Tactical Fighter Squadrons are committed to chop to NATO for combat employment.

- Base facilities during peacetime must be maintained for survival in wartime. Additional measures must be carried out to reduce vulnerability.

- USAFE units may be required to respond autonomously, if necessary, since communications could be severed or blocked. This philosophy extends to the lowest unit level.

- In-place resources have to support deployed units from CONUS and in-theater deployments.

- USAFE bases depend on USAREUR and host nations for some resources and ground transportation.

4.2 USAFE Extensions of the CONUS Findings

- The need for a tasking-based readiness system is prominent in USAFE.

- The decisions and questions about squadron ability to respond to a threat are pressing in USAFE. Answers are needed in time to decide very rapidly which resources will respond.

- AFIRMS analysis in TAC established that decision support information rather than voluminous, raw data, is required by managers to accurately assess their resource readiness. USAFE confirms that need.

- The logistics challenge is greater in USAFE. For some resources, there is difficulty in immediately knowing type, quantity, and location when a rapid response is required. In addition, the long supply pipeline from CONUS inhibits responsiveness.

- Activities associated with deploying, mobilizing, planning, tasking, and selecting units expand considerably because of the emphasis on employment in USAFE. To employ resources in USAFE, units may also be required to deploy in-theatre and go through many of the mobilizing activities that regulate TAC.

- Concern about munitions, lines of communication for movement, and resupply of resources were distinct requirements not emphasized in TAC.

- The basic structure and organization of a wing and squadron are the same as in TAC. TAC training objectives are exemplified at the USAFE TFW -- air and ground crews are trained to combat proficiency, ready to defend and fight. However, the facilities, the security, the hardened areas, and the autonomy of units are peculiar to USAFE. Defense planning and concern for survival are part of daily business. Table 4-1 summarizes USAFE and CONUS differences.

Table 4-1

COMPARISON USAFE/CONUS

POINT OF COMPARISON	USAFE (TAF)	CONUS (TAC)
Threat	Proximal (Minutes)	Distant (Hours/Days)
Command	AAFCE (NATO)	TAC; Gaining Command
Activity Focus (Crises)	Employment at MOB	Deployment to COB or FOL
Activity Focus (Peace)	Deploy for Weapons Training; Do NATO Exercise	Mobilization and Deployment Training; CONUS Exercises
Human Resource Emphasis	Respond to Alert and Combat; Sustain; Survive; Move; Augment	Train; Deploy; Augment
Facilities	Hardened; Survivable; Combat Ready	Soft; Non-survivable; Training
Unit Responsiveness	Alert; Minutes	Deploy; Hours/Days
Shortfall Concerns	Aircraft; Fuel; Munitions; Facilities; Crews; Personnel	Aircraft; Parts; Spares
Communications	Assume Vulnerable; Autonomy and Independence	Assume Operational; Dependence
Readiness	Living and Working Concept	Training, Exercised Concept
Tasking	NATO/Combat Training	Training/DOC/Planned Deployment
Mission	NATO Combat Required	Deploy to Gaining Command for Combat
Training	NATO Combat Rqmts.; TAC Eval; ORI	Basics; Exercises; ORI; DOC
Sustenance	CONUS Pipeline; Host Nation; Work-arounds	AFLC; CONUS
Transportation	MAC Priority; NATO; Land, Sea; Host Nation	Assume Operational
Weather	Numerous Down Days; Geographic Area Non-Conducive to Flying; Training Deployment; Pilot Weather Oualification	Training Variations; Use Flying Hours; Optional Locations

4.3 Current System Information Shortfalls

- Current readiness systems were not mentioned as providing information used by Operations, Maintenance, Logistics, or support. UNITREP is viewed as a reporting requirement rather than providing accurate, timely decision support information about capability needed by resource managers.

- No Air Force system can provide capability information in terms of sorties or precise, consistent, resource metrics. Existing resource information may provide quantity, location, and condition. This data does not directly answer whether the resources needed to do the task are available and operationally ready.

- A continuing criticism of current systems is the difficulty in their use and access. Also, the manual collection of data induces error since the data is not meaningful to the person providing the input.

- In Logistics, there is far too much data reported for a manager to access some piece of information to answer a readiness question quickly. As a result, there are initiatives in USAFE to build modules for JOPS for easier resource planning.

- In Maintenance, the right kind of readiness information is not being reported or recorded. Systems provide status of component repair and aircraft. However, to people who are concerned about sortie goals and generation, more significant indicators of readiness are required. More information is needed about failure rates, repair rates, break rates, and maintenance manhours expended per flying hours. As one Maintenance Officer put it, "What does it cost me in resources to generate one sortie?"

- Logistics planners expressed the need for readiness expressed in sortie capability. This would allow them to tell the Commander precisely how a tasking could be supported.

- Existing systems are not predictive. They are reporting type systems. Any loss of communications means a loss of capability information at higher levels.

4.4 USAFE Readiness Information Characteristics

USAFE readiness information must meet stringent constraints. The environment in which Air Force business is conducted greatly influences the breadth, timing, detail, and priorities of the information.

4.4.1 Timing Constraints by Tasking

Responses to tasking and development of tasking range from minutes to regulated formal planning cycles that can span 18 months, with continuous updates, depending on the threat. The readiness information used in deciding tasking issues must be provided within these same time periods. General purpose processes and functions presented in Section 3 can be compressed or expanded, depending on the tasking to be developed or responded to. Tasking can be as broad as that found in an operations or contingency plan or it can be a secure message relaying essential details needed to respond.

4.4.2 Timing Constraints by Threat

In USAFE, the geographical proximity to threat requires that readiness information be available near realtime. If the information is not available before a decision must be made or an action is completed, it is useless to the decision and becomes historical. After-the-fact readiness information is not acceptable to USAFE. Resource managers need information to make decisions about using resources for specific tasks. Furthermore, they need to predict at what time they will run out of resources, how long they can sustain base operations, or how many sorties can be flown for a certain tasking.

4.4.3 Levels of Detail

Squadron level information allows for the most accurate readiness decisions at HQ USAFE. At Wing level, depending on tasking and the situation, details would be needed about a flight and an AMB. At Squadron, the assessment would be made on one aircraft, one aircrew, and on support available for sortie generation. A Wing or Squadron might have to fight autonomously; this requirement must also be considered as a factor in decision making readiness assessment in USAFE.

The precision of the information needed to prepare a flying schedule and generation flow sequence represents the level of detail needed to support Wing readiness decisions. Some of this information would be reported by exception and would not be needed in near realtime, such as all maintenance repair status and all MICAP items. However, data about the aircraft, munitions, air and maintenance crews, and direct support resources, such as key spares and fuel, would be needed to assess readiness to launch and sustain generation for the duration of a tasking. Information requirements in Section 3 show the necessity for detail at HQ USAFE.

4.4.4 Key Users

Readiness information users range from the HQ USAFE DO to the production supervisor in an AMB. Specifically, Operations, Plans and Programs, Logistics, Maintenance, and Transportation are the key areas that need and supply readiness information.

4.4.5 Priorities

HQ USAFE and TFW have one common readiness information requirement that takes precedence: to know how many sorties can be generated and flown in response to a given tasking with the current resources available. The second priority is to know how long a squadron can sustain operations with current available resources, given tasking. The third is to know the limiting shortfalls and when they will occur.

4.5 USAFE Information Needs

Commanders, deputies, and assistants rely on readiness information. Operations has the most critical need for integrated readiness information to support decisions. The atmosphere of autonomy, emphasis on pervading threat of conflict, and readiness initiatives results in stringent readiness information requirements. USAFE reports to two command structures, assesses capability for two commands, and manages prepositioned resources, MOBs, and deployed units at COBs and FOLs. Threat awareness is part of daily living and induces personnel to seek base readiness initiatives. These personnel need information to keep pace with their initiatives.

During briefings and interviews with personnel at both HQ USAFE and the 52nd TFW, they communicated an urgent need to know: "How well am I doing?"; "Can I get the job done in time?; What are my problems?". Various individuals and organizations have devised novel ways of analyzing and otherwise using data obtained from existing reporting systems in an attempt to satisfy the answers to these questions. They have also supplemented higher headquarters reporting requirements with additional data collection to meet local needs. The results have been somewhat less than satisfying because the effort requires considerable time and labor and the results fall short of providing adequate answers. Some personnel have had to take initiatives to edit and arrange information so that it is useful for making decisions. This was seen in logistics planning, transportation, weapons and tactics, and OSC areas at HQ USAFE. When briefed on the kinds of AFIRMS visual products that are being considered, several logistics managers in the OSC were enthusiastic and saw potential solutions to visual communications problems within this facility. A recent exercise had been very constructive in highlighting some pressing readiness information requirements and shortfalls.

At the TFW, the readiness center for MICAP supplies provides a vivid example of what personnel must devise and rely on to know the disposition of key resources for the Wing mission. In Resource Management, a very clear and precise set of information was provided about what affects readiness.

Many Wing personnel gave their view of the key indicators of capability as well as shortfalls. What they now need are tools and information that facilitate the formulation and communication of their readiness. Personnel cautioned against oversimplifying the concept and scope of readiness information. Areas critical to integrated readiness measurement must be fully analyzed. After discussing the products that AFIRMS can provide, personnel agreed that the system is well worth pursuing and has the potential to satisfy critical information needs in USAFE.

Section 5

ACRONYMS AND DEFINITIONS

5.1 Acronyms and Abbreviations

AAFCE	-	Allied Air Forces Central Europe
ABO	-	Airborne Order
A/C	-	Aircraft
ACCMPS	-	Allied Comm and Control Message Processing System
ACE	-	Allied Civil Engineers; also Allied Command Europe
ACEVAL	-	Air Combat Evaluation
ACI	-	Air Combat Intercept
ACM	-	Air Combat Maneuver
ACMI	-	Air Combat Maneuver Instrumentation
ACO	-	Airspace Coordination Order
ACOC	-	Air Command Operations Center
ACT	-	Aerial Combat Tactics
ADOC	-	Air Defense Operations Center
ADR	-	Airbase Damage Repair
AEB	-	Aircrew Evaluation Board
AF	-	Air Force
AFCENT	-	Allied Forces Central Europe
AFCOM	-	Air Force Commissary
AFIRMS	-	Air Force Integrated Readiness Measurement System
AFLAS	-	Aviation Fuels Logistical Area Summary
AFLC	-	Air Force Logistics Command
AFORMS	-	Air Force Operational Readiness Management System
AG	-	Ample Gain (Cross - service; unannounced; land at other than home station or base)
AG	-	Army Group
AGE	-	Aerospace Ground Equipment
AGL	-	Above Ground Level; OPS - LL currency, 250 ft.
AGS	-	Aircraft Generation Squadron
AI	-	Airborne Intercept
AIMVAL	-	Air Intercept Missile Evaluation
AIS	-	Avionics Intermediate Support or Station

ALCE	-	Airlift Control Element
ALT	-	Altitude
AMB	-	Aircraft Maintenance Branch
AMF	-	Allied Command Europe Mobile Force
AMU	-	Aircraft Maintenance Unit - former Wing-level organization
ANG	-	Air National Guard
APG	-	Airplane General
APOD	-	Allocated Point of Debarkation
AR	-	Air Refuel
ARC	-	Airlift Requirements Center
ARIP	-	Air Refueling Initial Point
ARMS	-	Ammunition Reporting Management System
AROZ	-	Army Restricted Operations Zones
AS	-	Air Sortie
ASD	-	Air Sortie Duration
ASOC	-	Allied Sector Operations Center
ATA	-	Actual Time of Arrival
ATAF	-	Allied Tactical Air Force
ATD	-	Actual Time of Departure
ATE	-	Actual Time Enroute
ATM	-	Air Tasking Message
ATO	-	Air Tasking Order
ATOC	-	Allied Tactical Operations Center
ATR	-	Air Tasking Request
AV	-	Avionics
AWP	-	Awaiting parts
BAI	-	Battlefield Attack Interdiction
BAMS	-	Base Automated Mobility System
BFM	-	Basic Flight Maneuvers
BLSS	-	Base Level Self-sufficiency
BPO	-	Base Postflight
B-rations	-	Dehydrated Food

BSD	-	Basic Staff Directive
BSL	-	Basic System Listing
BW	-	Biological Warfare
BX	-	Base Exchange
C^3	-	Command, Control, and Communications
CAMPS	-	Computer Assisted Mission Planning System
CAO	-	Counter Air Operations
CAP	-	Combat Air Patrol
CAS	-	Close Air Support
CB	-	Chemical Biological
CBW	-	Chemical and Biological Warfare
CC	-	Office code for the Commander
CCTC	-	Command and Control Technical Center
CCTS	-	Combat Crew Training Squadron
CE	-	Civil Engineer
CENTAG	-	Central Army Group
CEPS	-	Central European Pipeline System
CMD	-	Command
CMMS	-	Conventional Munitions Management System
CNA	-	Camp New Amsterdam
COB	-	Collocated Operating Base
COIC	-	Combat Operations Intelligence Center
COMPES	-	Contingency Operation/Mobility Planning and Execution System
CONPLAN	-	Operational Plan in Concept Format
CONUS	-	Continental United States
CP	-	Command Post
CPX	-	Command Post Exercise
CRAF	-	Civil Reserve Air Force
C-Rations	-	Combat rations
CRS	-	Component Repair Squadron
C/S	-	Call Sign
CSG	-	Combat Support Group
CSS	-	Contingency Support Staff
CW	-	Chemical Warfare
CX	-	Cancelled
DAAR	-	Day Air-to-Air Refueling

DACT	-	Dissimilar Aerial Combat Tactics
DART	-	Type of target for air-air training
DCC	-	Damage Control Center
DCO	-	Deputy for Combat Operations
DE	-	Office Code for Civil Engineering
DEFREP	-	Defense Response Status
DNIF	-	Duties not involving flying
DEPL	-	Deployment
DEROS	-	Date of Expected Return from Overseas
DO	-	Deputy Commander for Operations
DOC	-	Designed Operational Capability
DOO	-	Daily Operations Orders
DOPSUM	-	Daily Operations Summary
DPQ	-	Defense Planning Questionnaire
EA	-	Emergency Action
EAC	-	Emergency Action Call
EAO	-	Emergency Action Officer
EC	-	Engine Change
ECD	-	Electronic Command Division (U.S.)
ECM	-	Electronic Counter Measures
ECS	-	Electronic Control System
EEC	-	Electronic Engine Control
EGRESS	-	Short term for ejection system
8x3x6+2	-	Notation for turn pattern - for A/C, 8+ spares - USAFE policy
EIFEL-DISTEL	-	NATO C^2 System
EMS	-	Equipmen Maintenance Squadron
E/NE	-	Effective/Non-Effective
EOR	-	End of runway
EPSF	-	Expenditures per sortie factor
ER	-	Equipment Repair
ERC	-	Eagle Readiness Center
ETA	-	Estimated Time of Arrival
ETD	-	Estimated Time of Departure

ETE	-	Expected Time Enroute
ETIC	-	Estimated Time in Commission
EUCOM	-	European Command
EWWS	-	Electronic Warfare Warning System
FAIP	-	First Assignment Instructor Pilot
FAR	-	Functional Area Requirement
FCC	-	Fuels Control Center
FCF	-	Functional Check Flight
FEBA	-	Forward Edge of Battle Area
FL	-	Flight Lead
Flight	-	Grouping of 2 or more aircraft
FMC	-	Fully Mission Capable
FOB	-	Forward Operating Base
FOCAS	-	Force Capability Assessment System
FOL	-	Forward Operating Location
FORSCAP	-	Force Capabilities System
FORSUM	-	Force Summary
FRAG	-	Fragmentary Order
FSAGA	-	First Sortie After Ground Alert
FSL	-	Full System Listing
FTD	-	Functional Training Detachment
GADGES	-	German Air Defense Ground Environment System
GCC	-	Graduated Combat Capability
GCI	-	Ground Control Intercept
GDP	-	General Defense Plans (NATO)
GLCM	-	Ground Launched Cruise Missile
GLO	-	Ground Liaison Officer
GND	-	Ground
GOFLAS	-	Ground Fuel Logistical Summary
GS/GSP	-	Groundspeed
GW	-	Gross Weight
HQ USAF	-	Headquarters, United States Air Force
HQ USAFE	-	Headquarters, United States Air Force Europe
HOI	-	Headquarters Operations Instruction
HPO	-	Hourly Post Flight
HUD	-	Heads up display

ICS	-	Inertial Control System
ICT	-	Integrated Combat Turn
IMRS	-	Improved Munitions Requirements System
IN	-	Office code for Intelligence
INS	-	Inertial Navigational System
IOC	-	Initial Operational Capability
IP	-	Instructor Pilot or Initial Point (Beginning navigation point on bomb run.)
IR	-	In-flight refueling
JCC	-	Job Control Center
JCS	-	Joint Chiefs of Staff
JDS	-	Joint Deployment System
JEIM	-	Jet Engine Intermediate Maintenance
JOPS	-	Joint Operation Planning System
JRS	-	Joint Reporting System
JSP	-	Joint Support Plan
LCOM	-	Logistics Composite Model
LG	-	Office code for Logistics
LL	-	Low Level; NLL - Night LL
LLTR	-	Low Level Transit
LOC	-	Lines of Communication
LOGDET	-	Logistics Detachment
LORAN	-	Long-range navigation
LOX	-	Liquid Oxygen
LRC	-	Logistics Readiness Center
LRU	-	Line Replacement Unit
LSBGA	-	Last Sortie Before Ground Alert
LSC	-	Load Standardization Crew
LT	-	Landing Time
MA	-	Deputy Commander for Maintenance
MAC	-	Military Airlift Command
MAJCOM	-	Major Command
MB	-	Main Base - synonym for MOB
MC or M/C	-	Mission Capable
MDC	-	Maintenance Data Collection

MDS	-	Mission, Design, Series
MEI	-	Management Effectiveness Inspection
MHE	-	Material Handling Equipment
MICAP	-	Mission Capability
MILAP	-	Maintenance Information Logically Analyzed and Presented
MMICS	-	Maintenance Management Information and Control System
MOB	-	Main Operating Base
MOGAS	-	Motor gasoline
MOS	-	Minimum Operating Strip
MP	-	Personnel, HQ USAF Level
MQT	-	Mission Qualification Training
MR	-	Mission Ready
MRG	-	Movement Requirement Generator
MS	-	Mission Support
MSC	-	Military Sealift Command
MSF	-	Munitions Storage Facility
MSK	-	Minimum Spares Kit
MSN	-	Mission
MTBF	-	Mean Time Between Failures
MTMC	-	Military Transportation Management Command
MTX	-	Motor Transport
MWA	-	Minimum Warning Attack
MWAP	-	Minimum Warning Attack Plan
NAAR	-	Night Air-to-Air Refueling
NAF	-	Numbered Air Force
NATO	-	North Atlantic Treaty Organization
NAVAIDS	-	Navigational Aids
NCA	-	National Command Authorities
NCOIC	-	Non-Commissioned Officer-in-Charge
NMC	-	Not Mission Capable
NMCB (NB)	-	Not mission capable for both (supply and maintenance)
NMCM (NM)	-	Not mission capable for maintenance
NMCS	-	Not mission capable for supply
NOSC	-	NATO Operations Support Cell
NSN	-	National Stock Number
OAS	-	Offensive Air Support
OB	-	Order of Battle

OCA	-	Offensive Counter Air
OJT	-	On-the-job training
OP	-	Operation
OPLAN	-	Operations Plan
OPR	-	Office of Primary Responsibility
OPS	-	Operations
OPSTAT	-	Operations Status Report
OR	-	Operationally Ready
ORI	-	Operational Readiness Inspection
OSC	-	Operations Support Center
PA	-	Program Authorization
PAA	-	Primary Authorized Aircraft
PAS	-	Primary Alerting System
PAX	-	Passengers
PDM	-	Programmed Depot Maintenance
P.E.	-	Periodic Inspection; P.I.
PMAPS	-	Predicted Munitions Automated Planning System
PMEL	-	Precision Measurement Equipment, Laboratory
PMI	-	Preventive Maintenance Inspection
POE	-	Port of Embarkation
POL	-	Petroleum, Oil, Lubricants
POM	-	Program Objectives Memorandum
POMO	-	Production-Oriented Maintenance Organization
PPP	-	Preposition Procurement Package
PTM	-	Pilot Training Missile
QAP	-	Quality Assurance Program
QT	-	Quick Turn
QVI	-	Quality Verification Inspection
RADCAL	-	Radar Calibration
RBS	-	Radar Bomb Site; Radar Bomb Scoring
RCO	-	Range Control Officer
RCR	-	Runway Condition Rating
RDEX	-	Readiness Exercise
RDJTF	-	Rapid Deployment Joint Task Force
RDTM	-	Rated Distribution Training Management
Recce	-	Reconnaissance

RED COM	-	Air Force Readiness Command
REDP	-	Redeployment
RHAW	-	Radar Hazard Warning
RM	-	Resource Management
RNG	-	Range
RPI	-	Rated Pilot Identifier
RRR	-	Rapid Runway Repair
RSU	-	Runway Supervisory Unit at EOR
RTU	-	Replacement Training Unit
SAC	-	Strategic Air Command
SACEUR	-	Strategic Allied Commander Europe
SADT	-	Structured Analysis and Design Technique
SAM	-	Surface-to-Air Missile
SAR	-	Search and Rescue
SB	-	Standby Base
SCL	-	Standard Conventional Load
SI	-	Selective Indentification
SLO	-	Squadron Liaison Officer
SOAP	-	Spectrometric Oil Analysis Program
SOC	-	Sector Operations Center
SOF	-	Supervisor of Flying
SON	-	Statement of Operational Need
SqOC	-	Squadron Operations Center
SRC	-	Survival Recovery Center
SRD	-	Standard Reporting Designator
SSN	-	Sortie Sequence Number
STANEVAL	-	Standards Evaluation
STANAG	-	Standard NATO Agreement
STTO	-	Start-Taxi-Takeoff
TA	-	Table of Allowance
TAB-V or TABVEE	-	Aircraft shelter
TAC	-	Tactical Air Command
TACAN	-	Tactical Aid to Navigation
TACEVAL	-	Tactical Evaluation
TACP	-	Tactical Air Control Parties (Army) (ALO-FAC)

TACP	-	Theater Ammunition Control Point
TAF	-	Tactical Air Force
TAFTRAMS	-	Tactical Air Force Training Management System
TC	-	Transportation Coordination
TCC	-	Transportation Coordination Center
TCTO	-	Time Compliance Technical Order
TDY	-	Temporary Duty
TER	-	Triple Ejection Rack
TFS	-	Tactical Fighter Squadron
TFW	-	Tactical Fighter Wing
TH	-	True Heading
TLP	-	Tactical Leadership Program
TMDE	-	Test, Measurement and Diagnostic Equipment
TO	-	Take-Off
TO	-	Technical Order
TOA	-	Transportation Operating Agency
TOT	-	Time Over Target
TOLD	-	Take-off and landing data
TPFDD	-	Time-phased Force Deployment Data
TPFDL	-	Time-phased Force Deployment List
TRA	-	Temporary Reserved Airspace
TRAP	-	Tanks, racks, adapters, and pylons
UE	-	Unit Equipage
UNITREP	-	Unit Status and Identity Report
UPT	-	Undergraduate Pilot Training
USAREUR	-	U.S. Army Europe
USM	-	Unscheduled Maintenance
UTC	-	Unit Type Code
UTE	-	Utilization
VDP	-	Vehicle Down for Parts
WAA	-	Wartime Aircraft Activity
WCDO	-	War Consummables Distribution Objectives
WCDR	-	War Consummables Distribution Requirements
WIN	-	WWMCCS Intercomputer Network

WLT	-	Weapons Load Training
WMP	-	War Mobilization Plan
WOC	-	Wing Operations Center
WPARR	-	War Plans Additive Requirements Report
WRM	-	War Reserve Material
WRSK	-	War Readiness Spares Kit
WSB	-	Weapons Services Branch
WSEP	-	Weapons System Evaluation Program
WTD	-	Weapons Training Detachment
WW	-	Wild Weasel
WWA	-	Wild Weasel Augmentation
WWMCCS	-	World Wide Military Command and Control System
WX	-	Weather
XC	-	Cross Country

5.2 Definitions

autonomous operation - In air defense, the mode of operation assumed by a unit after it has lost all communications with higher echelon. The unit commander assumes full responsibility for control of weapons and engagement of hostile targets. (JCS Pub 1)

capability - The ability to execute a specified course of action. (JCS Pub 1)

closure time - The time at which the last element has arrived at a specific location. (JCS Pub 1)

data - A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation or processing by humans or by automatic means. Any representations such as characters or analog quantities to which meaning is or might be assigned. (JCS Pub 1)

decision - In an estimate of the situation, a clear and concise statement of the line of action intended to be followed by the commander as the one most favorable to the successful accomplishment of his mission. (JCS Pub 1)

deployment - In a strategic sense, the relocation of forces to desired areas of operation. (JCS Pub 1)

employment - The tactical usage of aircraft in a desired area of operation (AFM 11-1)

force sourcing - The identification of the actual units, their origins, POEs, and movement characteristics to satisfy the time phased force requirements of a supported commander. (JDA JDS Procedures Manual 1 Jan 82)

lines of communication - All the routes, land, water, and air, which connect an operating military force with a base of operations along which supplies and military forces move. (JCS Pub 1)

logistics sourcing - The identification of the origin and determination of the ability of the TPFDD nonunit logistics requirements. (JDA JDS Procedures Manual 1 Jan 82)

mission - The dispatching of one or more aircraft to accomplish one particular task. (JCS Pub 1)

mobility - A quality or capability of military forces which permits them to move from place to place while retaining the ability to fulfill their primary mission. (JCS Pub 1)

mobilization - The act of preparing for war or other emergencies through assembling and organizing national resources. (JCS Pub 1)

movement control - The planning, routing, scheduling, and control of personnel and supply movements over lines of communication; also an organization responsible for these functions. (JCS Pub 1)

pipeline - In logistics, the channel of support or a specific portion thereof by means of which material or personnel flow from sources of procurement to their point of use. (JCS Pub 1)

readiness - Capability an assigned unit can actually deliver as a percent of the capability required by the tasking. (USAFE FAR, March 1980)

sector - A defense area designated by boundaries within which a unit operates, and for which it is responsible. (JCS Pub 1)

shortfall - The absence of forces, equipment, personnel, materiel, or capability — identified as a plan requirement — that would adversely affect the command's ability to accomplish its mission. (JDA JDS Procedures Manual 1 Jan 82)

sortie - An operational flight by one aircraft. (JCS Pub 1)

support - An element of a command that assists, protects, or supplies other forces in combat. (JCS Pub 1)

survivability - The capability of a system to withstand a man-made hostile environment without suffering an abortive impairment of its ability to accomplish its designated mission. (AFM 11-1)

sustainability - The ability to maintain the necessary level and duration of combat activity to achieve national objectives. Sustainability is a function of providing and maintaining those levels of force, material, and consumables necessary to support a military effort. (JCS Pub 1)

tasking - (NATO) The process of translating the allocation into orders, and passing these orders to the units involved. Each order normally contains sufficient detailed instructions to enable the executing agency to accomplish the mission successfully. (JCS Pub 1)

turnaround (turn) - The length of time between arriving at a point and being ready to depart from that point. It is used in this sense for the loading, unloading, re-fueling and re-arming, where appropriate, of vehicles, aircraft and ships. (JCS Pub 1)

Appendix A

REFERENCES

Appendix A

REFERENCES

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A.2 Persons Interviewed

Headquarters United States Air Forces in Europe

Col. Berle	LGX	Maj. Mueller	LGX
Col. Clouser	DOO	Maj. Olson	DOY
Col. Dickey	DOC	Maj. Pennington	LGX
Col. Graham	XPP	Maj. Pollmann	XPXW
Col. Igelman	AD	Maj. Rupright	DOXE
Col. James	ADM	Maj. Tundel	LGMX
Lt. Col. Abbott	DCZ	Maj. Williamson	LGX
Lt. Col. Bump	DOXE	Maj. Zolondek	DOCR
Lt. Col. Burns, Jr.	DOJ	Capt. Adams	DOXC
Lt. Col. Carder	XPXF	Capt. Buckwalter	DOMI
Lt. Col. Davis	DOJN	Capt. Caramanica	LGT
Lt. Col. Drew	DCZR	Capt. Deiner	LGMX
Lt. Col. Jolly	DOOW	Capt. Gordon	LGMX
Lt. Col. Halber	DOCS	Capt. Heely	DOC
Lt. Col. Kater	DCZX	Capt. Irons	DOTB
Lt. Col. Segars	XPX	Capt. Jackson	LGXT
Lt. Col. Sterk	XPP	Capt. McCarthy	DOOX
Lt. Col. Todd	LGMX	Capt. McCormick	CP W
Lt. Col. Towsley	DOJN	Capt. Nash	LGX
Maj. Alexander	DOJN	Capt. Oeser	DOCX
Maj. Bailey	LGXX	Capt. Powell	DOOR
Maj. Beardsley	LGXX	Capt. Richie	DOCF
Maj. Brown	LGX	Capt. Strick	CSBB
Maj. Bunjer	LGSX	Capt. Stinson	DOC
Maj. Frederick	CP	MSgt. Harris	EurS
Maj. Germann	LRC(OSC)	MSgt. Schenkelberg	EUR.Comm.Cmd.
Maj. Gillette	XPXW	MSgt. Snyder	LGW
Maj. Guth	DOXC	TSgt. Scott	LGWR
Maj. Jolly	DOOW	Sgt. Chambers	LGWR
Maj. Jordan	DOJC	CMSgt. Kreps	DOYR
Maj. Moulton	LGWR	Mr. Burns	DCZ

36th TFW/BITBURG

Col. Anderson	CC	Maj. McDonald	MAE
Col. Clark	DO	Maj. Schafer	DOCP
Col. Pillet	MA	Maj. Weiss	MAM
Col. Tilghman	CC 36CSG	Capt. Brennan	525TFS
Lt. Col. Babbitt	MA-3	Capt. Collier	LGX
Lt. Col. Beauchemin	DE	Capt. Harris	525TFS
Lt. Col. Bennett	DOT	Capt. Trexler	525TFS
Lt. Col. Damon	LG	1st Lt. Belt	LGSF
Lt. Col. Joyner	DOO	1st Lt. Sommer	DOOT
Lt. Col. Lewis	DO 525TFS	CMSgt. Laws	MAAM
Lt. Col. Melson	525TFS	MSgt. Brasser	MAAM
Maj. Casey	CCX	Sgt. Meir	CCX
Maj. Geberlein	LGS		

52 TFW/SPANGDAHLEM

Col. Barrineau	DO	Maj. Adleman	DOX
Col. Chase	CC	Maj. Bevan	CVV
Col. Lehr	MA	Maj. Johnson	DOOE
Col. McNeill	RM	Maj. Lowenther	DO
Lt. Col. Fekete	LGT	Maj. Maki	MAMJ
Lt. Col. Flint	MAA	Maj. Pizzo	DOCP
Lt. Col. Kitchen	DO	Maj. Power	MAAM
Lt. Col. Kittle	DOT	Maj. Stan	DOO
Lt. Col. Linn	DO	Maj. Welch	DOX
Lt. Col. McLeod	CVV	Capt. Avery	AGS, AMB
Lt. Col. Sheffler	DOT	Capt. Caspers	DOOE
Lt. Col. Wimer	LGS	Capt. Fields	Munitions Loading
Lt. Col. Zickert	DOX	Capt. Grabulis	LGS-MICAP

Capt. Randles	LGX	CMSgt. Carter	MAAM
Capt. Paulson	DOOE	CMSgt. Markowski	MAAM
Lt. Baker	52AGS	CMSgt. Negley	MAAMY
Lt. Brown	MAAM	CMSgt. Scragg	MASL
Lt. Fraher	MAEMW	CMSgt. Sewell	MAM
Lt. Knox	MASL	TSgt. Cardwell	MAMY
Lt. Turner	MA	TSgt. Glover	MAMM
MSgt. Starnes	MAMJ	TSgt. Haller	DOTS
SMSgt. Francis	MAMJ	TSgt. Simms	LGS-MICAP
SMSgt. Kaina	MAMP	TSgt. Tubergen	DOTS
SMSgt. Mercer	MAAMY	Sgt. Herberth	IN
SMSgt. Wallace	MAMJ	Sgt. Jordan	AMB

ATOC SEMBACH

Col. Stell	DCO
Lt. Col. Jeffries	--

ATAF

Lt. Col. Donahue	4 ATAF
Lt. Col. Ingram	4 ATAF

AAFCE/RAMSTEIN AB

Lt. Col. Hoche	AAFCE
Lt. Col. Lukan	AAFCE
Lt. Col. Madden	AAFCE

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Appendix B

USAFE TASKING OVERVIEW

APPENDIX B

USAFE TASKING OVERVIEW

B.1 Tactical Air Tasking in the USAFE Environment

Ability to assess an individual flying unit's readiness to perform specific tasking is the central requirement AFIRMS must satisfy. Critical readiness factors, i.e., aircraft status, aircrew status, ordnance availability, POL availability and maintenance capability must be measured against demands placed on the unit by specific mission requirements. The first step toward identifying critical factors and defining the quantitative relationships between them and tasking is to understand the tasking process. This Appendix discusses tasking of individual tactical flying units, specifically tactical fighter wings and squadrons, in NATO's Central Region.

B.1.1 Command Relationships

The USAFE combat flying units of interest, Tactical Fighter Wings (TFWs) and Tactical Fighter Squadrons (TFSs), exist within two command structures: national (U.S.) command structure in peace and crisis conflicts and NATO command structure during wartime. Figure B-1, USAFE Command Relationships, depicts these command structures. Note: A generic TFW is shown. It could be either an air defense wing or offensive wing. The NATO command structure shown depicts a path through Allied Air Forces Central Europe (AAFCE), a single Allied Tactical Air Force (ATAF), and its associated Sector Operations Center (SOC) and Allied Tactical Operations Center (ATOC). Selective wings may receive tasking from more than one ATAF or ATOC depending on force allocations made by AAFCE.

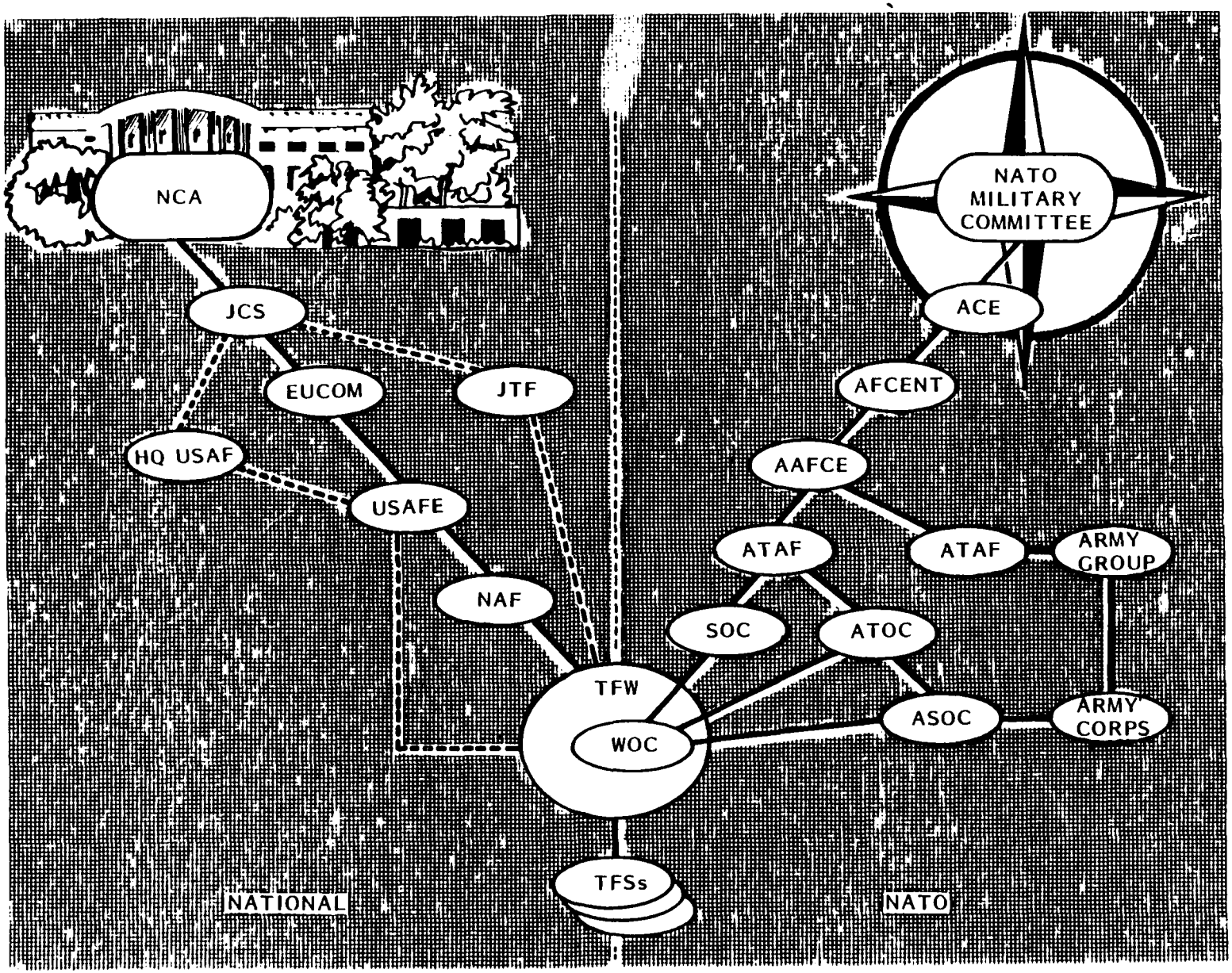

Figure B-1. USAFE Command Relationships

B.1.1.1 National Command Structure

USAFE is the air component of the unified European Command (EUCOM). As such, it implements the U.S. air commitment to NATO and other U.S. taskings. The following narrative briefly describes the command structure in USAFE.

National Command Authorities (NCA)

The NCA are at the top of the U.S. chain-of-command. All factors of a crisis or conflict situation -- political, economic, intelligence, as well as military -- are considered at this decision-making level. Military related decisions are passed from NCA to the Joint Chiefs of Staff.

Joint Chiefs of Staff (JCS)

The JCS advise the NCA on military matters, readiness, options and courses of action. Based on NCA guidance and direction, the JCS monitors all aspects of readiness, mobilization, deployment and employment. They allocate resources and provide tasking and direction to appropriate services, commands, and agencies. In addition, the JCS approve OPLANS and OPORDS and monitors all aspects of crises and conflicts.

European Command (EUCOM)

EUCOM is a unified command composed of U.S. Army, Navy, and Air Force elements. This command is primarily responsible for ensuring that U.S. forces are capable of meeting their NATO commitments and other national missions.

Headquarters United States Air Force (HQ USAF)

HQ USAF (Air Staff) participates in the development of courses of action and in JCS decision-making process for input to NCA. HQ USAF allocates forces, personnel and supplies to appropriate MAJCOMs and monitors the status, location, and readiness of Air Force assets. The Air Staff is also responsible for development of future force structure programs based on JCS and Congressional directives and guidance.

United States Air Forces in Europe (USAFE)

Under peacetime operational control of EUCOM, USAFE commands the air resources committed to the European theater and is responsible for training, equipping, and maintaining forces. USAFE develops and maintains supporting plans and provides planning data in support of U.S. and NATO plans and establishes readiness criteria to ensure accomplishment of the tasking represented in plans. Specifically, HQ USAFE reviews, amplifies, and in some cases initiates OPLANs/OPORDs, develops training criteria, oversees training and exercise scheduling, develops logistics and personnel support requirements, and conducts tactical evaluations.

Numbered Air Force (NAF)

USAFE is subdivided into three NAFs along obvious geographical boundaries, each responsible for the wings assigned to it.

Tactical Fighter Wing (TFW)

The combat resources of USAFE, i.e., individual flying units (squadrons) exist within the structure of a Wing and are supported administratively and logistically by it. Three flying squadrons (normally) are supported by associated Aircraft Maintenance Branches (AMBs) as well as by other shared resources. Tactical Fighter Wings and Tactical Fighter Squadrons are of primary concern to this document.

Tactical Fighter Squadron (TFS)

The smallest autonomous unit within the command structure is the TFS. At this level specific taskings (missions) are assigned to individual aircraft and aircrews. The TFS accomplishes the Air Force tactical mission -- "to fly and fight".

B.1.1.2 NATO Command Structure

Shown in Figure B-1 is the NATO command structure. At its lowest levels are the same U.S. wings and squadrons existing in the national command structure. The NATO command structure also includes wings and squadrons of other NATO member nations. While fighting units (squadrons) usually transfer operational control (CHOP) to NATO during wartime, administrative, logistic, and other combat support remain under national control.

NATO Military Committee

The highest military authority in the NATO alliance is the Military Committee. This committee controls three allied commands through the International Military Staff: Europe (Allied Command Europe - ACE); Atlantic (ACLANT); and Channel (ACCHAN).

Allied Command Europe (ACE)

ACE prepares defense plans for the European area (less Britain, France, Iceland, and Portugal) and in wartime, would control all land, sea, and air operations.

Allied Forces Central Europe (AFCENT)

AFCENT is responsible for both ground and air operations within the Central Region. It is a major subordinate command to ACE. Subordinate to AFCENT are two army groups (NORTHAG and CENTAG) and its air arm, Allied Air Forces Central Europe (AAFCE).

Allied Air Forces Central Europe (AAFCE)

AAFCE provides air defense for the Central Region as well as tactical offensive air support of the two army groups through two subordinate Allied Tactical Air Forces (ATAFs). In wartime, COMAAFCE establishes air objectives and priorities, and allocates available forces and missions in geographic areas. AAFCE issues this information in a daily Air Directive to its subordinate ATAFs.

Allied Tactical Air Force (ATAF)

The ATAFs exercise operational control over assigned forces and are responsible for carrying out the objectives and priorities established in the Air Directive. The ATAF commander refines tasking in the Air Directive by allocating the number of sorties against specific missions and geographic areas. Operational control over its forces is accomplished through Sector Operations Centers (SOCs) and Allied Tactical Operations Centers (ATOCs). A Daily Operational Order identifying specific targets, times-on-target, and allocation priorities is issued to subordinate ATOCs.

Sector Operations Center (SOC)

Each SOC is responsible for air defense within a specific geographic area. This responsibility includes operational control of defensive air units, air defense missile batteries, and radar installations. Air resources are tasked via Air Tasking Messages (ATMs), scrambles, and airborne orders.

Allied Tactical Air Operations Center (ATOC)

An ATOC is responsible for mission planning and tasking all offensive air operations including Offensive Air Support (OAS), Offensive Counter Air (OCA), Electronic Warfare (EW), Interdiction, and Reconnaissance. An ATOC is composed of three main components: the Plans Division which is responsible for planning the next day's flying activities and issuing the Air Tasking Order (ATO); the Intelligence Division which is primarily concerned with targeting and weaponeering; and the Current Operations Division which coordinates and monitors current day's air effort. The Current Operations Division also processes Air Support Operations Center (ASOC) requests for OAS and Recce missions, assigns mission aircraft, and tasks the selected unit via ATMs.

Tactical Fighter Wing (TFW)

The function of a Wing is to conduct combat missions. Attack and Recce wings are tasked from an ATOC while Air Defense wings are tasked from a SOC. The Mission Planning function at the Wing receives the ATO, ATMs, and verbal mission taskings (called Frag Orders) from the ATOC and assesses the tasking to determine the capability to fully respond.

The Wing Operations Center (WOC) is concerned with actual flying operations -- takeoffs and landings, aircraft generation status, munitions availability, air crew and TFS status, etc.

Tactical Fighter Squadron (TFS)

For AFIRMS, the primary object of interest within both command structures is the tactical fighter squadron. The peacetime USAFE command structure exists primarily to ensure that each TFS can meet its wartime commitment while the NATO command and control structure exists to ensure that this combat resource is effectively utilized. At the lowest level, however, both tasking chains result in the same final product - a detailed flying schedule. The schedule may have been developed over weeks -- during peacetime -- or in a few hours in response to an ATO during wartime. In any case, the resources of a Wing must be used to generate the number and type of required sorties at the required times.

B.1.2 USAFE Tasking Scenarios

The following scenarios are presented to enhance the brief discussion of national and NATO command structures presented in the previous section.

B.1.2.1 Peacetime - Role Change

Figure B-2, XXTFW Role Change, below depicts "tasking" related to changing the primary role of the XXTFW.

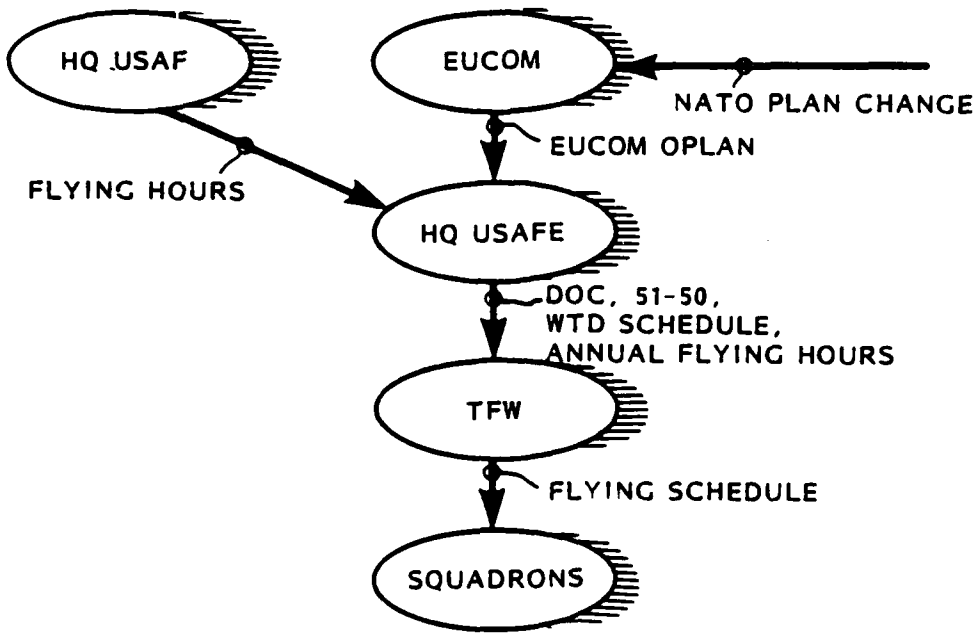

Figure B-2. XXTFW Role Change

In this scenario a change in the Concept of Operations in a NATO plan has caused EUCOM to modify an existing OPLAN to the extent that the existing roles (DOC) of XXTFW must be changed.

After receiving the new plan, HQ USAFE analyzes the plan for operational and support feasibility. Deciding the plan is feasible, a new DOC is constructed for XXTFW and coordinated. Since this is a new major role change (OCA to OAS) the training syllabus (51-50) must be revised and WTD schedules modified.

The tasking on the Wing then is to train its flying units to the level required by the new DOC. This tasking is translated to daily flying schedules for XXTFW aircrews and aircraft.

B.1.2.2 Wartime - Air Defense Tasking

This scenario addresses the tasking process for air defense of the Central Region during wartime. Figure B-3, TFW Air Defense Tasking, depicts the primary command structure and tasking process.

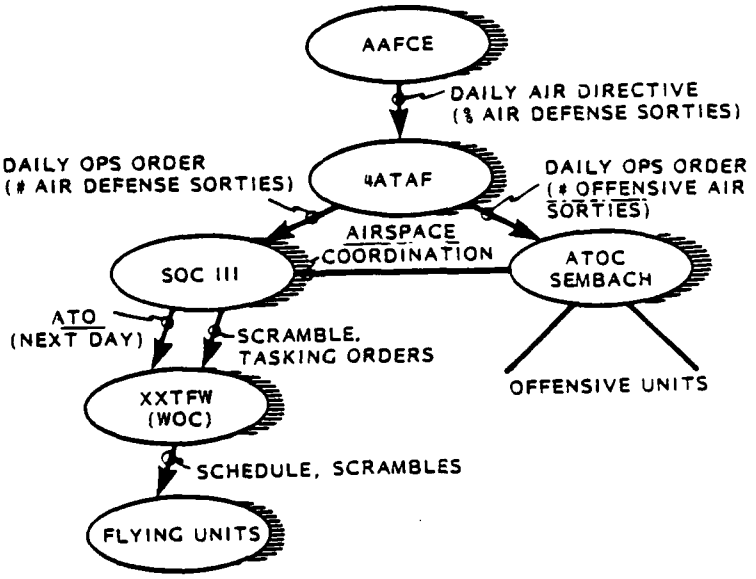

Figure B-3. XXTFW Air Defense Tasking

Air Defense tasking (as well as offensive air tasking) begins at AAFCE with development of the "next day's" Air Directive. In the Air Directive COMAAFCE sets objectives and priorities for the next days operations and allocates a percentage of total available sorties to defensive and offensive operations.

TWO and FOURATAF, after receiving the Air Directive, begin a more detailed planning process. Actual targets, time-on-targets, priorities and other mission details are decided and distributed to the SOC and ATOCs in the Daily Operations Order. ATAF planning activity includes coordination with Army Group Commanders and the ATOCs.

SOC III is responsible for all aspects of air defense operations in the FOURATAF area. SOC III exercises tactical control of air defense squadrons, air defense missile batteries, radar systems, and tactical command and control resources. SOC III is also responsible for airspace coordination with the ATOCs and for reporting changes in FOURATAF air defense posture via a Daily Tasking Order to AAFCE, the ATAF, ATOCs, and others. Air Defense scrambles and other tasking orders are transmitted to the XXTFW WOC either from SOC III or an associate CRC.

TFW WOC receives tasking and processes it. Some takeoff times are scheduled, others are subject to the scramble order. Scrambles cause immediate launching of alert aircraft. Combat Air Patrol (CAP) and escort commitments are scheduled as specified in the ATO and/or initiated via ATMs.

B.1.2.3 Peacetime - Air Defense

This scenario addresses the peacetime air defense tasking of the XXTFW. Figure B-4, XXTFW Peacetime Command Relationships, depicts the tasking process.

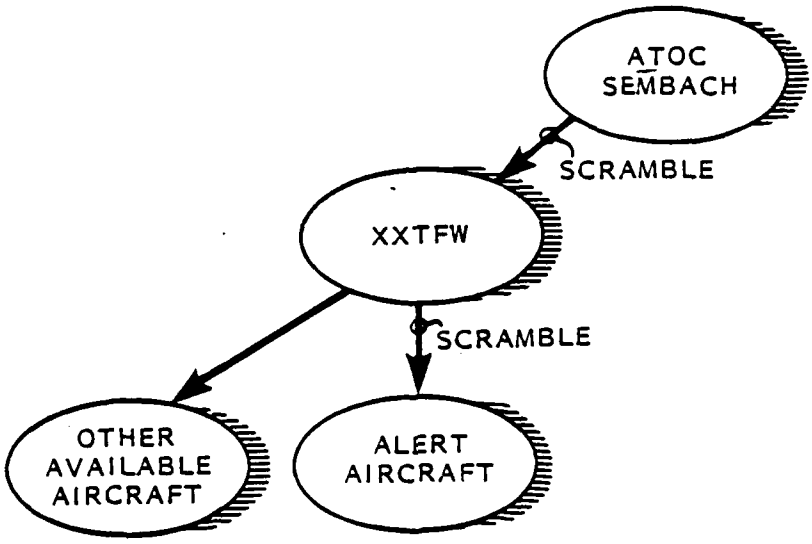

Figure B-4. XXTFW Peacetime Command Relationships

As with other USAFE TFWs during peacetime, XXTFW is generally in a training and/or exercise posture. In addition, however, XXTFW is tasked to provide a number of aircraft and aircrews on alert status. Alert resources are tasked during peacetime from ATOC Sembach.

B.1.2.4 Wartime - Offensive Air

This scenario describes offensive air tasking of a USAFE/NATO TFW. Figure B-5, XXTFW offensive air tasking depicts the essential relationships.

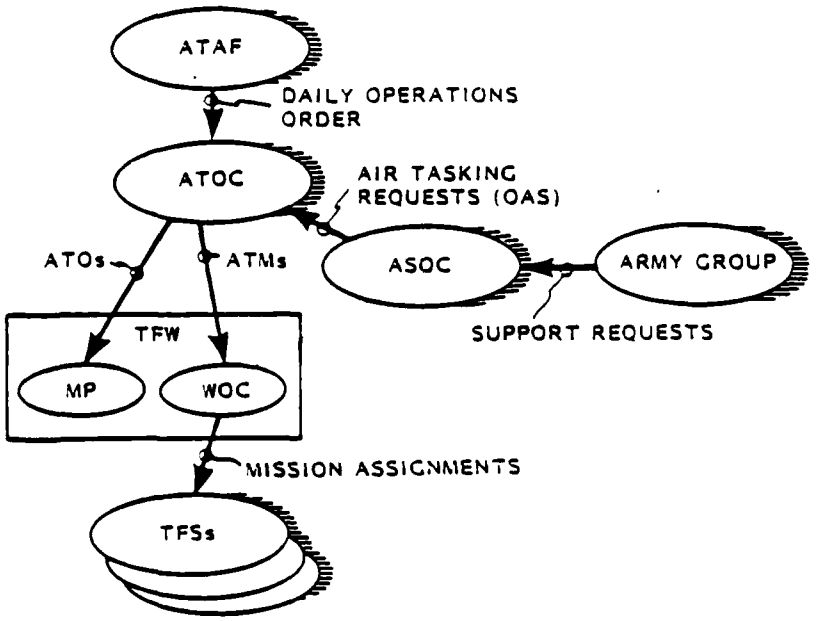

Figure B-5. XXTFW Offensive Air Tasking

As with a SOC, the planning process at an ATOC begins with the receipt of the Daily Operations Order. The Plans Division of the ATOC matches tasks assigned with allocated resources to determine which units should be tasked with which missions. As this process continues, the Air Tasking Order (ATO) is built. When complete, the ATO is distributed to the flying units for assessment and detailing. This completes the "next day" planning cycle.

For the current day's operations, the Current Ops Division of the ATOC accomplishes tactical control. Air Tasking Messages (ATMs) are sent to TFW WOCs to initiate planned actions. For OAS missions, the ATOC receives Air Tasking Requests (ATRs) from the Air Support Operations Center (ASOC) and, if accepted, tasks the assignment through the WOC.

B.2 Other USAFE Factors of Interest

Several other factors, unique to USAFE, must be discussed to provide the appropriate context for the presentation of USAFE's readiness measurement requirements. The two primary areas of concern to AFIRMS are deployment, both in terms of augmentation forces and in deployment of owned forces, and novel basing concepts -- Collocated Operating Bases (COBs), Forward Operating Locations (FOLs) and Dual-based units.

B.2.1 Deployment

The discussion of deployment was straightforward in the original AFIRMS Functional Area Requirement document; it considered only Tactical Air Command units, e.g., units who have detailed deployment requirements. The analysis of USAFE readiness measurement requirements must consider deployment of USAFE resources to several areas as well as deployment of CONUS units and resources to USAFE.

B.2.1.1 Deployment of USAFE Forces

The mission of USAFE is to provide trained, equipped, and supported forces to NATO commanders during crisis and wartime. The intent is, therefore, that nearly all of the flying units belonging to USAFE during peacetime will normally fight from their peacetime locations during wartime. There may be, however, situations when units or smaller elements may be required to deploy from their MOB.

Training

Because of airspace limitations and weather in the Central Region, USAFE units periodically deploy to training locations; primarily to Zaragoza, Spain, Incirlik, Turkey, and Decimomannu. These Weapons Training Deployments (WTDs) are coordinated and scheduled well in advance. Other training deployments are made to Red Flag exercises at Nellis AFB and to Eglin AFB in CONUS. These training deployments have a readiness impact because aircraft, air crews and supporting resources are away from wartime operating locations. They also greatly enhance readiness upon the unit's return, due to the concentrated period of training.

ACE Mobile Force (AMF)

The AMF has been formed specifically to respond to situations on NATO's northern and southeastern flanks. Some USAFE fighter squadrons have been identified as elements of this force. The exact composition of the Force varies depending on the flank/mission to be supported.

There are two aspects of readiness affected by the AMF concept: readiness of identified squadrons to deploy and the effect of the deployment on remaining force. This implies: 1) an AFIRMS capability must be available for deployed units; 2) AFIRMS must consider "deployment readiness"; and 3) AFIRMS must allow inclusion and removal of individual units from readiness aggregates at higher command levels.

B.2.1.2 Deployment of CONUS Forces to USAFE

AFIRMS must be able to measure the readiness of augmentee forces to deploy to Europe and their readiness to employ as they are available for tasking in USAFE. AFIRMS must be capable of including these readiness measurements in higher level aggregates. In addition, for planning purposes, readiness projections must include expected deployment and employment readiness of units not currently in place. This "assumed" readiness must be highlighted, if a condition for an integrated readiness measurement.

B.2.2 Other Basing Modes

Wartime basing concepts must be considered when defining AFIRMS requirements in USAFE. Collocated Operating Base (COB) and Forward Operating Location (FOL) concepts have a significant impact on system design and on what information will be provided, who will use the information, and timing requirements.

B.2.2.1 Collocated Operating Bases (COBs)

The COB concept allows for basing of augmentation forces on allied airfields during wartime. Each COB will be administratively and logistically supported by a USAFE MOB. Tasking will be through NATO channels with U.S. units directed from the host WOC.

B.2.2.2 Forward Operating Locations (FOLs)

FOLs have been established for A-10s. Operations will be similar, but simplified to those at MOBs. Each FOL will support only a single TFS with the Squadron Operations Center (SqOC) serving as a WOC.

The FOL environment, characterized by austere facilities and a dynamic threat environment, must be further studied to determine what support is required from AFIRMS. Deployment to a FOL as well as employment from a FOL, is tasking against which readiness may be measured.

B.2.2.3 Dual-Based Units

Dual-based units, those based both in CONUS and USAFE, are the easiest alternative to support. The unit's USAFE MOB will be supported by AFIRMS, as will all other USAFE MOBs, with actual gained resources entered in the AFIRMS data base as they become operationally ready.

B.2.3 USAFE Control of Support Forces

The USAFE Operations Support Center (OSC) is a national facility. Its primary functions are to task U.S. forces which do not CHOP to NATO, to provide logistics support for all air force units in theater including those who CHOP to NATO, and to serve as a point-of-contact for matters involving deployed MAC and SAC resources.

A detailed operational concept for the OSC has not been finalized, thus specific AFIRMS requirements cannot be stated. General information requirements can be stated, however. The OSC must have access to logistics readiness information for all USAFE MOBs, COBs, and FOLs to fulfill its logistics support responsibility. In addition, the OSC must have access to unit readiness of augmentee forces as well as in-place operational units in order to properly assign beddown locations for incoming units.

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Appendix C

ANALYSIS

C.1 Reading Instructions for SADT™ Models

In this document, diagrams like the sample presented are used to describe functions and information at various levels of detail.

In the diagram, boxes represent functions and activity; arrows represent objects or information. As indicated by the shading, a box on the upper diagram is detailed by the boxes and arrows of the lower diagram. Arrows entering and leaving the shaded box are those arrows entering and leaving the lower diagram. The shaded box and the lower diagram represent two levels of detail of the same function.

One box can be detailed and shown as another complete diagram. A system or process can be described with a set of diagrams called a model. The high level diagram of a model shows the main activity in a single box. The box can be detailed with a first-level diagram. Continuing this way, a set of diagrams can describe a system or process to any desired level of detail.

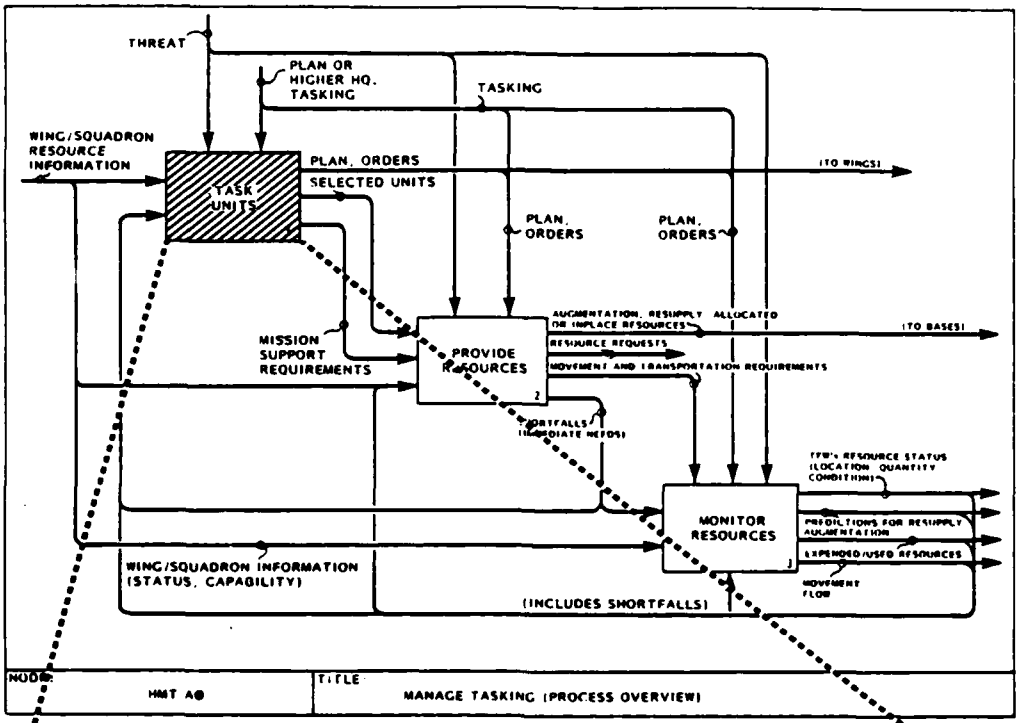
This modeling technique is based on the Structured Analysis and Design Technique (SADT - a trademark of SofTech, Inc.).

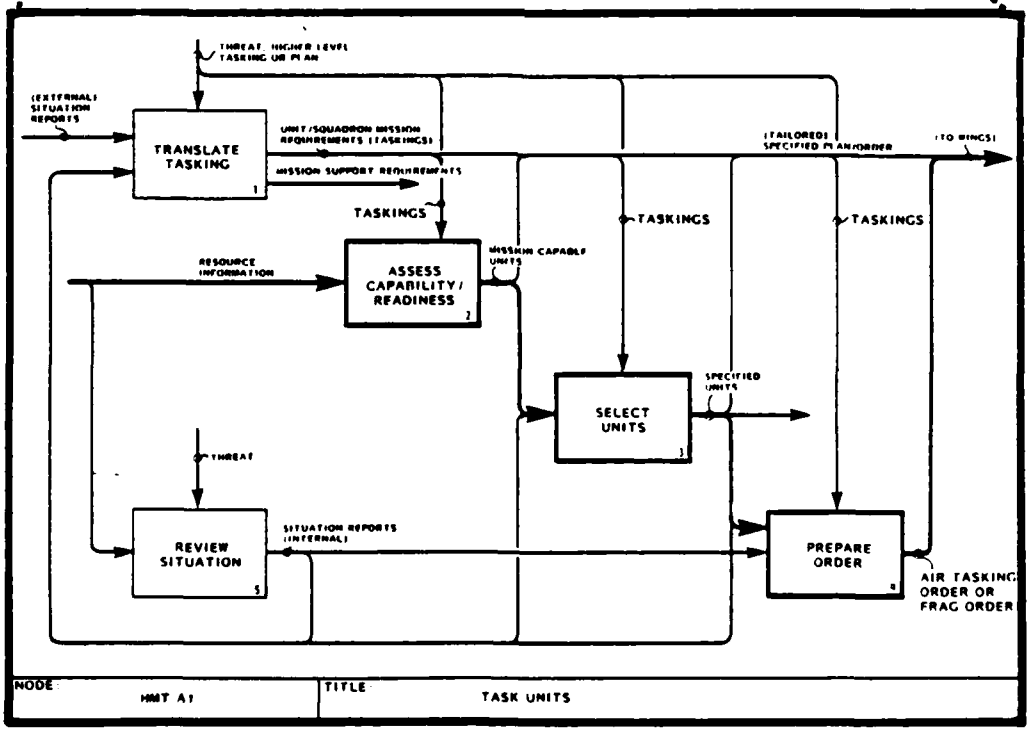
Key diagram features are:

Diagram Number - The node number indicates a diagram's place in a model. A lower level diagram's node number is constructed from the node number of the upper level diagram box number. A0, A1, A2, A11, A12, A121, etc.

Arrow Position - Input arrows enter a box on the left. Output arrows leave a box on the right. Control arrows enter a box at the top. The upward pointing arrows entering the bottom of the box are optional; they indicate the support of mechanism or the activity.

Occasionally, an author may include a "For Exposition Only" or "FEO" diagram. As its title implies, the diagram highlights some aspect of the model. It is not part of the "top-down" decomposition of the model.


THREAT
PLAN OR HIGHER HQ. TASKING
TASKING
WING/SQUADRON RESOURCE INFORMATION
TASK UNITS
PLAN, ORDERS SELECTED UNITS
(TO WINGS)
PLAN, ORDERS
PLAN, ORDERS
MISSION SUPPORT REQUIREMENTS
PROVIDE RESOURCES
2
AUGMENTATION, RESUPPLY ALLOCATED OR INPLACE RESOURCES
(TO BASES)
RESOURCE REQUESTS
MOVEMENT AND TRANSPORTATION REQUIREMENTS
SHORTFALLS (IMMEDIATE NEEDS)
TFW's RESOURCE STATUS (LOCATION QUANTITY CONDITION)
MONITOR RESOURCES
3
PREDICTIONS FOR RESUPPLY AUGMENTATION
EXPENDED/USED RESOURCES
MOVEMENT FLOW
WING/SQUADRON INFORMATION (STATUS, CAPABILITY)
(INCLUDES SHORTFALLS)
NODE
HMT A0
TITLE
MANAGE TASKING (PROCESS OVERVIEW)


THREAT, HIGHER LEVEL TASKING OR PLAN
(EXTERNAL) SITUATION REPORTS
TRANSLATE TASKING
1
UNIT/SQUADRON MISSION REQUIREMENTS (TASKINGS)
MISSION SUPPORT REQUIREMENTS
(TAILORED) SPECIFIED PLAN/ORDER
(TO WINGS)
TASKINGS
TASKINGS
TASKINGS
RESOURCE INFORMATION
ASSESS CAPABILITY/ READINESS
2
MISSION CAPABLE UNITS
SELECT UNITS
3
SPECIFIED UNITS
THREAT
REVIEW SITUATION
5
SITUATION REPORTS (INTERNAL)
PREPARE ORDER
4
AIR TASKING ORDER OR FRAG ORDER
NODE
HMT A1
TITLE
TASK UNITS

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C.2 Model Index

Modules - Node Abbreviations (H = HQ; HDT = HQ Develop Tasking; (HDTO = Operations View; HDTL = Logistics; HDTM = Movement)

Nodes

M (FEO)	Plan and Manage Tasking	
HP/MT	A-1 Plan and Manage Tasking	HQ USAFE
HDTO	Operations View	Level
(FEO)	Tailor Plan/Prepare Order	
HDTL	Logistics View	
(FEO)	Tailor Plan/Prepare Order	
HDTM	Movement View	
(FEO)	Tailor Plan/Prepare Order	

(HMT = HQ Mange Tasking)

HMT	AO Manage Tasking (Execution)	HQ USAFE
HMT	A1 Task Units	Level
HMT	A2 Provide Resources	
HMT	A3 Monitor Resources	

Modules - Node Abbreviations (E = Execution; M = Manage; W = Wing)

Nodes

E (FEO)	Execute Tasking	
EMT	A-1 Execute Tasking	
WME (FEO)	Manage Execution (Overview)	
WME	AO Manage Execution	HQ USAFE
WME	A1 Translate Tasking, Specify Units	Level
WME	A2 Prepare Fragmentary Order, Schedule Pilots and Generation	
WME	A3 Monitor Resources	
WME	A32 Assess Resources	
	(MA = Maintenance)	
ET (FEO)	Execute Taskings	Wing/Squadron
ET	A-1 Execute Taskings	Level
WMA (FEO)	Maintain Aircraft (Overview)	
WMA	AO Maintain Aircraft	
WMA	A1 Generate Aircraft	
WMA	A2 Repair in Shop	
	(O = Operations)	
WO (FEO)	Fly Aircraft (Overview)	Wing/Squadron
WO	AO Fly Aircraft	Level
WO	A1 Train	
WO	A3 Defend/Fight	
	(S = Support)	
WS (FEO)	Support Mission (Overview)	Wing/Squadron
WS	AO Support Mission	Level

Modules - Node Abbreviations (R = Readiness; RS = Sorties; RR = Resources; RI = Information)

Nodes

R (FEO)	Support Management (Overview)	
R	A-1 (Support Management)	
RS	AO Manage Sorties	HQ USAFE
RR	AO Assess Resource Readiness	and
RI	AO Report/Record (Information)	Wing/Squadron
		Levels

Decision Analysis Modules (HQ USAFE)

M (FEO) Plan/and Manage Tasking (HQ USAFE)

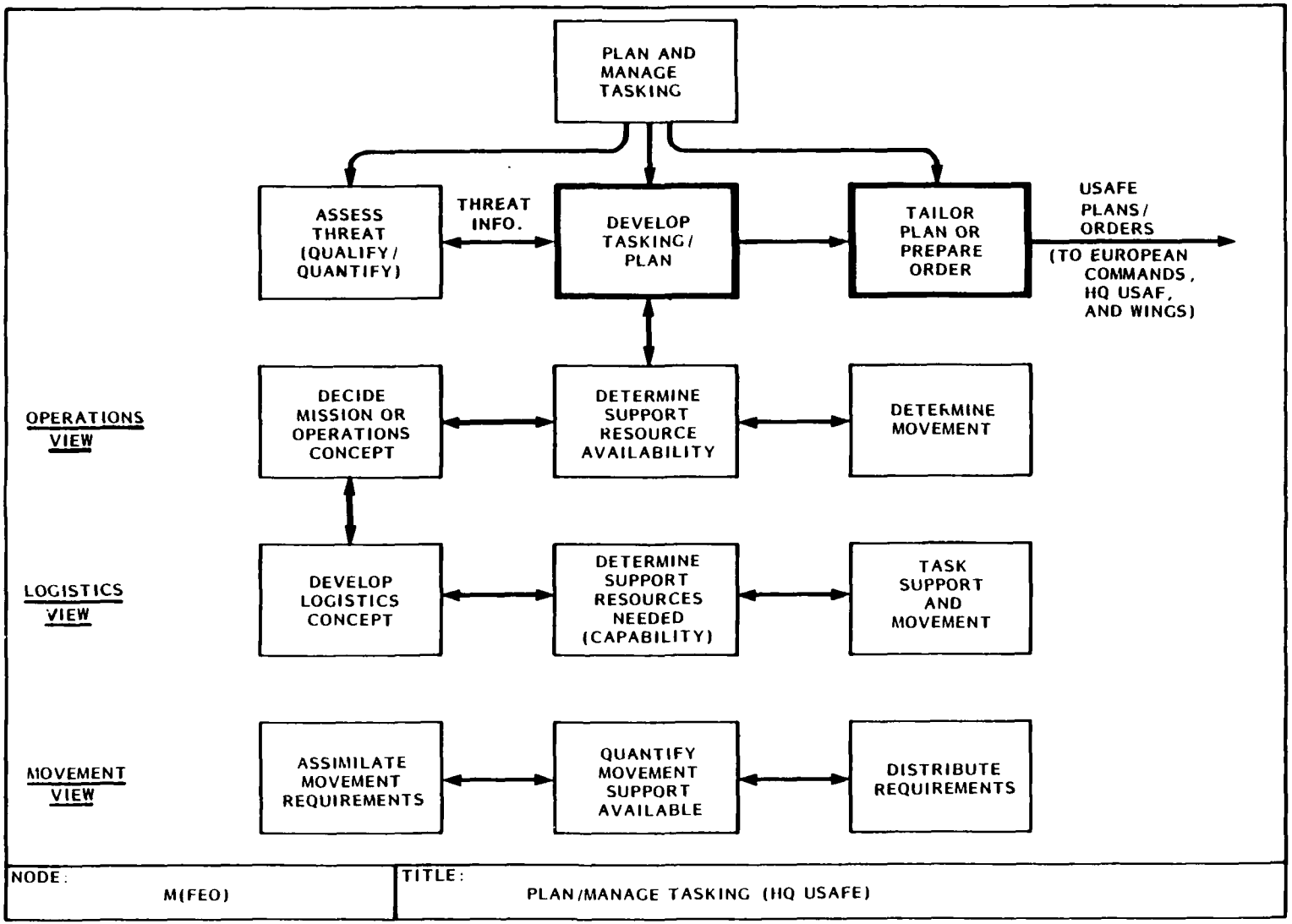
The block diagrams to the right provide context for HQ USAFE planning and tasking functions. Tasking management is presented in two modes: planning tasking and executing tasking. Notice that threat assessment (not heavy lined) is out of scope. This does not preclude that output from intelligence is necessary input to readiness assessment and management. Threat information is reflected in tasking and is converted to the type and quantity of resources required to counter or destroy the threat.

The three top functions shown under Plan and Manage Tasking occur concurrently. Information feedback is implied among them. These functions generate specific plans or execution orders sent to EUCOM, HQ USAF, and USAFE TFWs, iteratively.

The three views of develop tasking/plan (heavy lined) show tasking management for operations, logistics, and movement. All three areas prepare a plan concept and requirements, spanning 18 months or within hours. These three viewpoints were chosen to describe decisions at USAFE concerning tasking (operations), tasking support (logistics), and resource movement (movement). Augmentation, collocated base dependencies, and resupply for sustaining forces warrant three views of tasking decisions and readiness information requirements at HQ USAFE.

Notice that movement as shown supports both logistics and operations and is a logistics problem, itself. The complexity of land, sea, and air transportation in USAFE requires a separate view of this problem.

Tailoring plans or preparing orders (heavy lived) might seem to overlap with develop tasking/plan. Within the three viewpoints to be explained in detail, this function is separated from developing plans. Tasking elements are unique for a threat event. Plans must be modified and are not always applicable; sometimes original concepts must be formulated. In rapid response situations, tasking or orders will be developed and rapidly sent to units. The tailoring or short term process is distinct from the longer process of developing operations plans.


PLAN AND MANAGE TASKING
ASSESS THREAT (QUALIFY/ QUANTIFY)
THREAT INFO.
DEVELOP TASKING/ PLAN
TAILOR PLAN OR PREPARE ORDER
USAFE PLANS/ ORDERS
(TO EUROPEAN COMMANDS, HQ USAF, AND WINGS)
OPERATIONS VIEW
DECIDE MISSION OR OPERATIONS CONCEPT
DETERMINE SUPPORT RESOURCE AVAILABILITY
DETERMINE MOVEMENT
LOGISTICS VIEW
DEVELOP LOGISTICS CONCEPT
DETERMINE SUPPORT RESOURCES NEEDED (CAPABILITY)
TASK SUPPORT AND MOVEMENT
MOVEMENT VIEW
ASSIMILATE MOVEMENT REQUIREMENTS
QUANTIFY MOVEMENT SUPPORT AVAILABLE
DISTRIBUTE REQUIREMENTS
NODE: M(FEO)
TITLE: PLAN/MANAGE TASKING (HQ USAFE)

HP/MT A-1 Develop Plan/Tasking, Process Overview (Module)(HQ USAFE)

The overview to the right shows the context for producing plans and orders to perform tasking. Controlled by threat and higher command level tasking, threats are continually assessed (Box 1). When a threat event occurs, an alert or warning is sent to other functional areas from Operations. Logistics responds with a concept that can support operations. Via logistics managers, the movement or transportation requirements are worked. After all functional area representatives concur, a plan is generated, or the existing plans modified as needed, to meet threat changes and reflect available support.

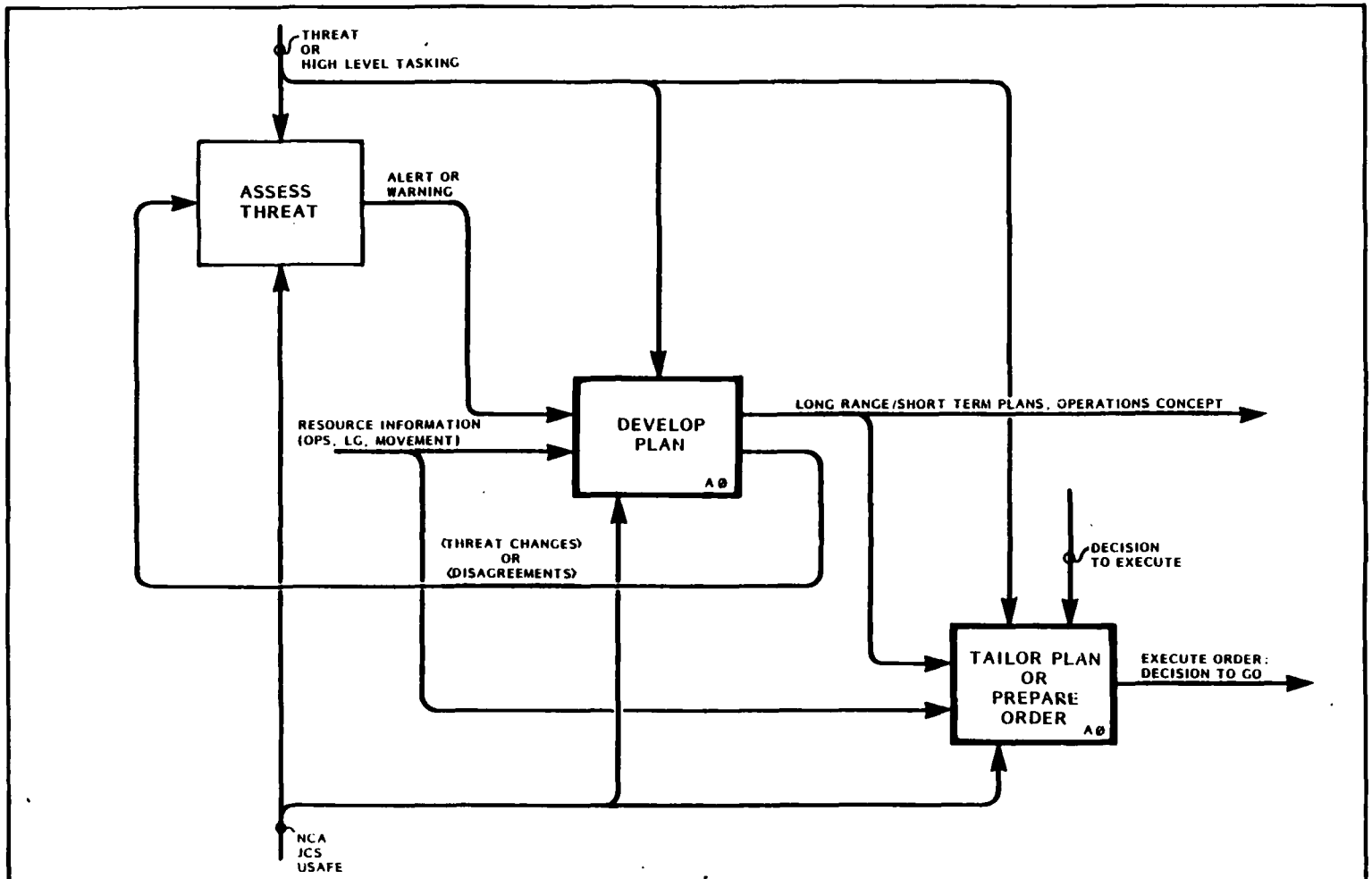
Develop plan/tasking is described from three viewpoints. Each view is designated a major decision module.

Tasking Data Requirements are listed below. They are used for planning, fragging, and scheduling units. The amount and specification of tasking data are variable. The list contains essential elements critical to producing tasking of any kind.

TASKING DATA REQUIREMENTS

SAMPLE INPUT	PROCESS	SAMPLE OUTPUT
USCOM MESSAGE (War, Contingency) Event on Base Exercise Event Hours Allocated for Flying	Task Units	ORDER (Contingency, War) Daily Flying Schedule Exercise Start-up Order Contingency Plan

Situation Data	Mission Data	Support Data	Movement Data
Threat (Target Area)	OPR (Delegation of Authority)	Location, Time	Threat
Location (Target, Conflict)	Mission Type, Tactics	Weapon Type (MDS) (SCL)	OPR Responsibility
Time	Objective/Desired Result	Quantity of MDS (UTC) (PAA)	Quantity of MDS (A/C)
Politics	Weapon Type (MDS) (SCL)	Number of Sorties	Response Time
Response Time (Range)	Friendly Location/ Identification	(Generation, Turns, Spares, POL)	Location (Situation)
Location (MOB, FOL, COB)	Quantity of MDS (A/C)	Sortie Duration (POL, Turns, Air Refueling)	Time
	Response Time	Response Time	Volume (Cubic feet)
	Number of Sorties		Weight (Tonnage)
	Sortie Duration		Outsized Loads
	Location (MOB, COB, FOL)		PAX
	Rules of Engagement		
	Command/Signal		
	Execution Time (Fixed)		



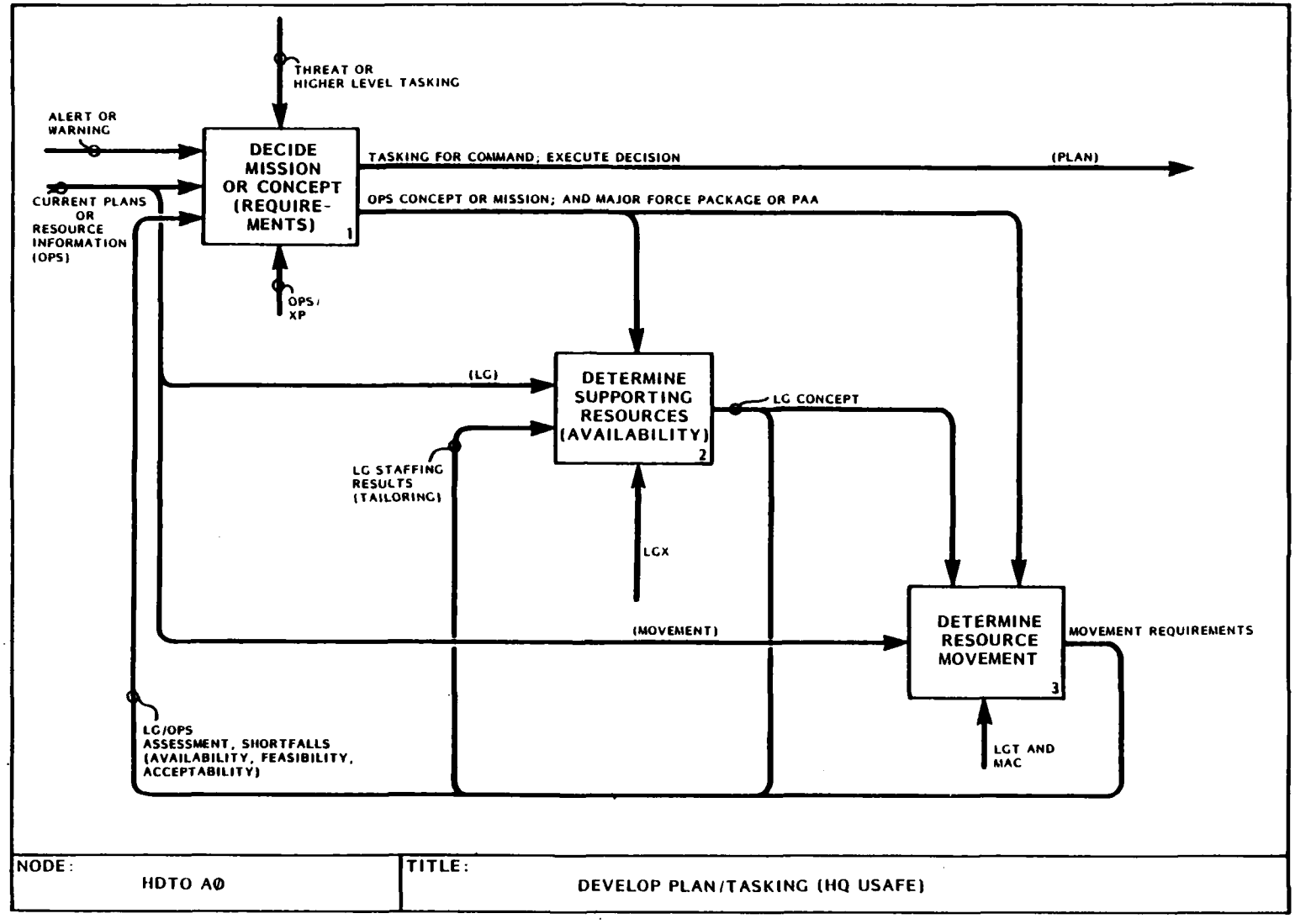
NODE:	TITLE:
HP/MT A 1	PLAN/MANAGE TASKING (HQ USAFE)

HDTO AO Develop Plan/Tasking, Operations View (HQ USAFE)

This diagram shows the main activities needed to develop a plan or tasking. Given a current plan, or an alert or warning (intelligence information), Operations first decides how units will respond to the threat or to tasking from a higher command level (Box 1). In planning, managers from Operations develop a concept sent to logistics to determine whether the force to be used can be supported. Depending on a long or short term response requirement, information to Logistics can be comprehensive or can just specify the number of PAA needed. Logistics responds to Operations with the availability of resources to support the mission (Box 2) via a Logistics Concept. In preparing this concept, Logistics questions Operations and coordinates requirements with logistics areas and communications to put the necessary UTCs and ancillary support together. When coordinated and completed, both Operations and Logistics pass their movement requirements to airlift or land transportation.

Critical to this planning activity is devising plans to specify resources needed if threat information and intelligence predictions materialize. Alternatives must also be planned. If the situation is an alert, the major emphasis is to determine what units are to be assigned. In this case, it is likely that plans will be tailored and orders prepared to await an execute decision (Box 1 output).

Essential to developing tasking or plans is accurate resource information (Box 2), especially when managers must rely on support from bases other than the PAA source base. Availability of resources at those bases must also be known. CONUS, as well as USAFE bases, can be involved.



NODE:	TITLE:
HDTO A0	DEVELOP PLAN/TASKING (HQ USAFE)

(FEO) Tailor Plan/Prepare Order, Operations View (Hq USAFE)

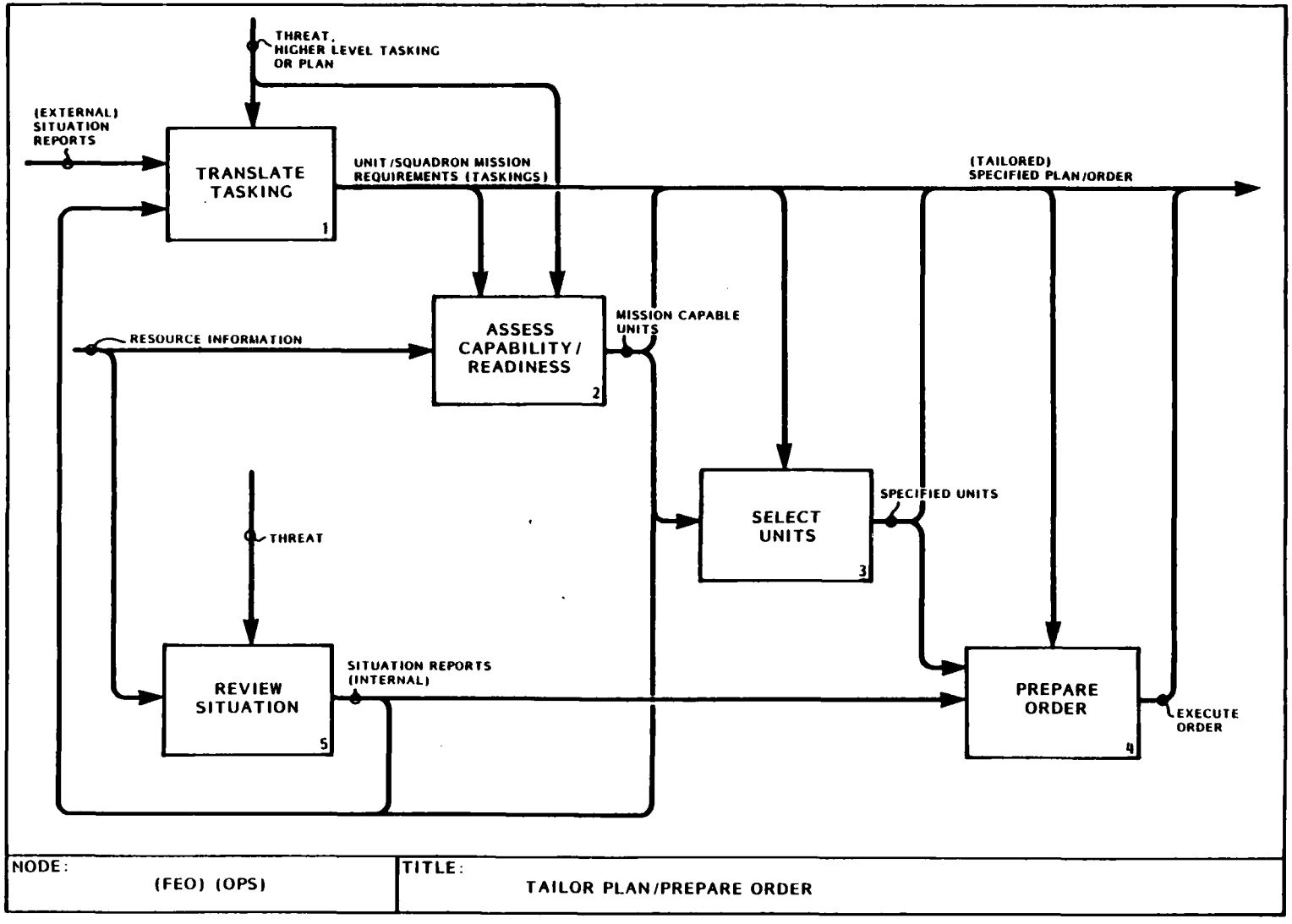
This For Exposition Only (FEO) diagram shows the functions required to tailor plans and prepare orders for rapid response to unplanned tasking.

In this case, functional area representatives decide what units will respond. The tasking comes from a higher command or headquarters.

The activity shown works for short term planning. The time allowed to prepare the plan or order constrains the process. Contingency, war, special tasks, or imminent threat would be translated (Box 1) to a mission requiring units for a specified plan or order awaiting a decision to be carried out (Box 4). To take either course of action requires assessment and selection of units (Boxes 2 and 3). Box 5 uses incoming resource information to update the resource profile. Immediate response from source squadron bases and collocated support bases is needed. Assessment (Box 2) requires updates about unit status to provide MR candidates to Box 3 for selection and, eventually, to prepare orders (Box 4).

Operations (Box 1) needs feedback from the assessment in Box 2. Intelligence and external situation reports are also required to generate requirements (taskings) for squadrons or units.

The system can slow down and pause at Boxes 2, 3, or 4. During any of these activities events may ebb or cease. On the other hand, the system can speed up; from Boxes 1 and 2, mission capable units would be ordered to respond. Feedback from Box 2 to Box 1 would produce an order to execute.


THREAT, HIGHER LEVEL TASKING OR PLAN
(EXTERNAL) SITUATION REPORTS
TRANSLATE TASKING
1
UNIT/SQUADRON MISSION REQUIREMENTS (TASKINGS)
(TAILORED) SPECIFIED PLAN/ORDER
RESOURCE INFORMATION
ASSESS CAPABILITY/ READINESS
2
MISSION CAPABLE UNITS
SELECT UNITS
3
SPECIFIED UNITS
THREAT
REVIEW SITUATION
5
SITUATION REPORTS (INTERNAL)
PREPARE ORDER
4
EXECUTE ORDER
NODE:
(FEO) (OPS)
TITLE:
TAILOR PLAN/PREPARE ORDER

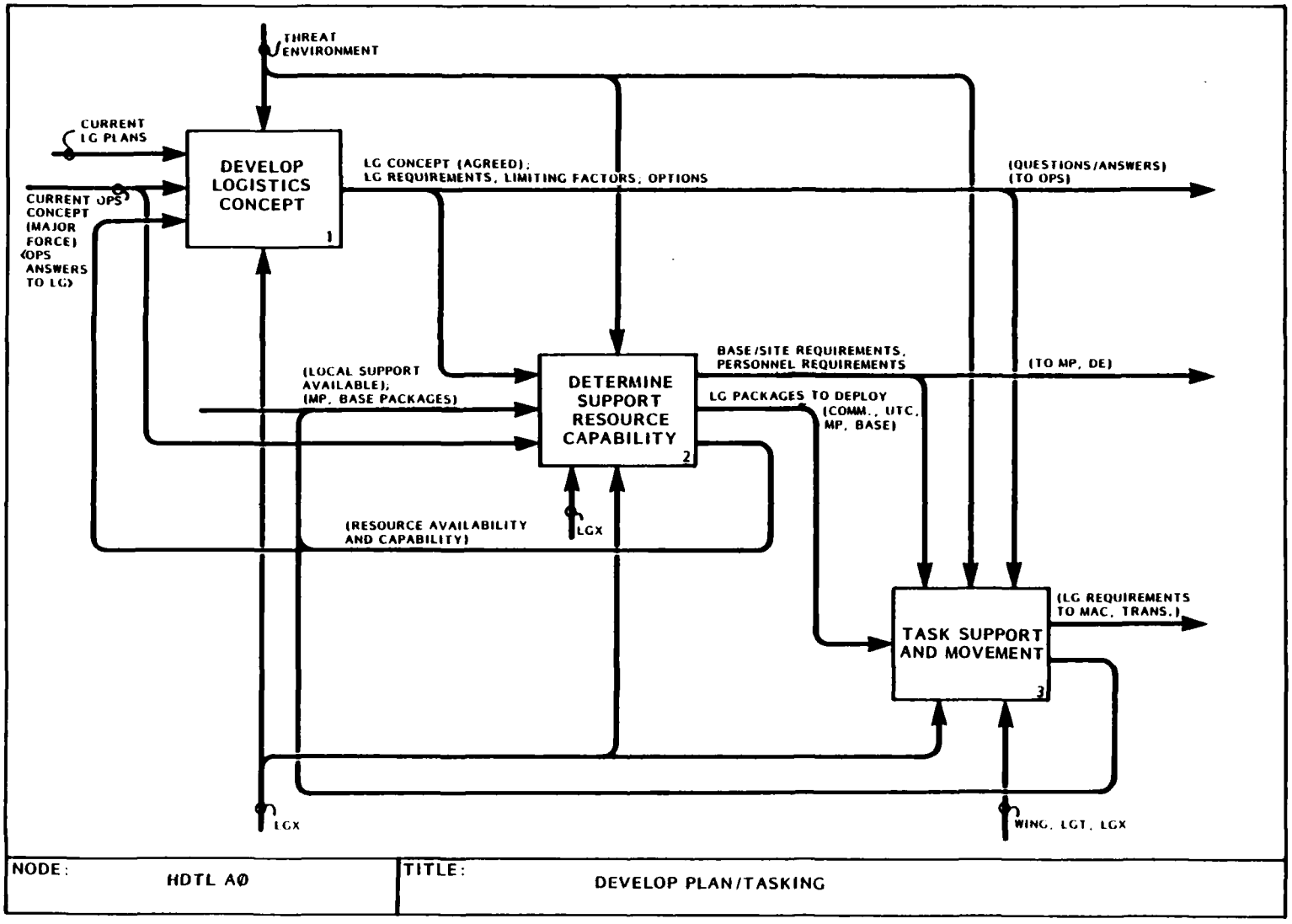
HDTL/AO Develop Plan/Tasking, Logistics View (HQ USAFE)

This diagram describes the Logistics view of developing a plan or tasking. The key decision logistics has to make is whether or not an Operations concept is supportable. Given operations' requirements for number of PAA, sortie duration per aircraft, and location and time for response, Logisitics prebuilds UTCs and resource packages, when possible, to support the tasking.

Target location, base location, and time to respond are critical tasking elements because early agreement has to be reached about acceptability and supportability of Operations' tasking. Logistics asks and answers operations about the resources needed for the mission. A requirement is set to met MAC closures. All packages needed to deploy and employ must be decided so that movement of the required resources can be completed in time to respond to the tasking (Boxes 2 and 3). In addition, personnel and site requirements must be planned (Box 2). Matching what is available against what is needed at a location to perform the tasking is a key task in logistics planning. If no deployment is required, Logistics still has to plan for sustaining and surviving. Movement of resources may be required for augmentation or for resupply; transportation must be planned. Logistics must know support available at MOBs, COBs, and FOLs. Resources at remote deployment sites must also be determined to ensure adequate equipment, vehicles, messing, and UTCs to support the PAA.

Logistics planners in USAFE coordinate the requirements to logistics resource managers and receive feedback about supportability (Box 2). When a Logistics Concept is generated, it goes to Operations for concurrence. This becomes, after coordination with a higher command level, the logistics portion of an Operations Plan.

Tasking and threat can require that short range plans be prepared. Rapid response within hours may be required. Managers must quickly assess required resources. Planners working the resources daily make these assessments through messages, data bases, telcons, or experience with the tasking requirements. Operations requires that Logistics assess how many sorties can be generated or flown, given the tasking requirements and available resources. Resource capability must be expressed according to Operations expressions of tasking.

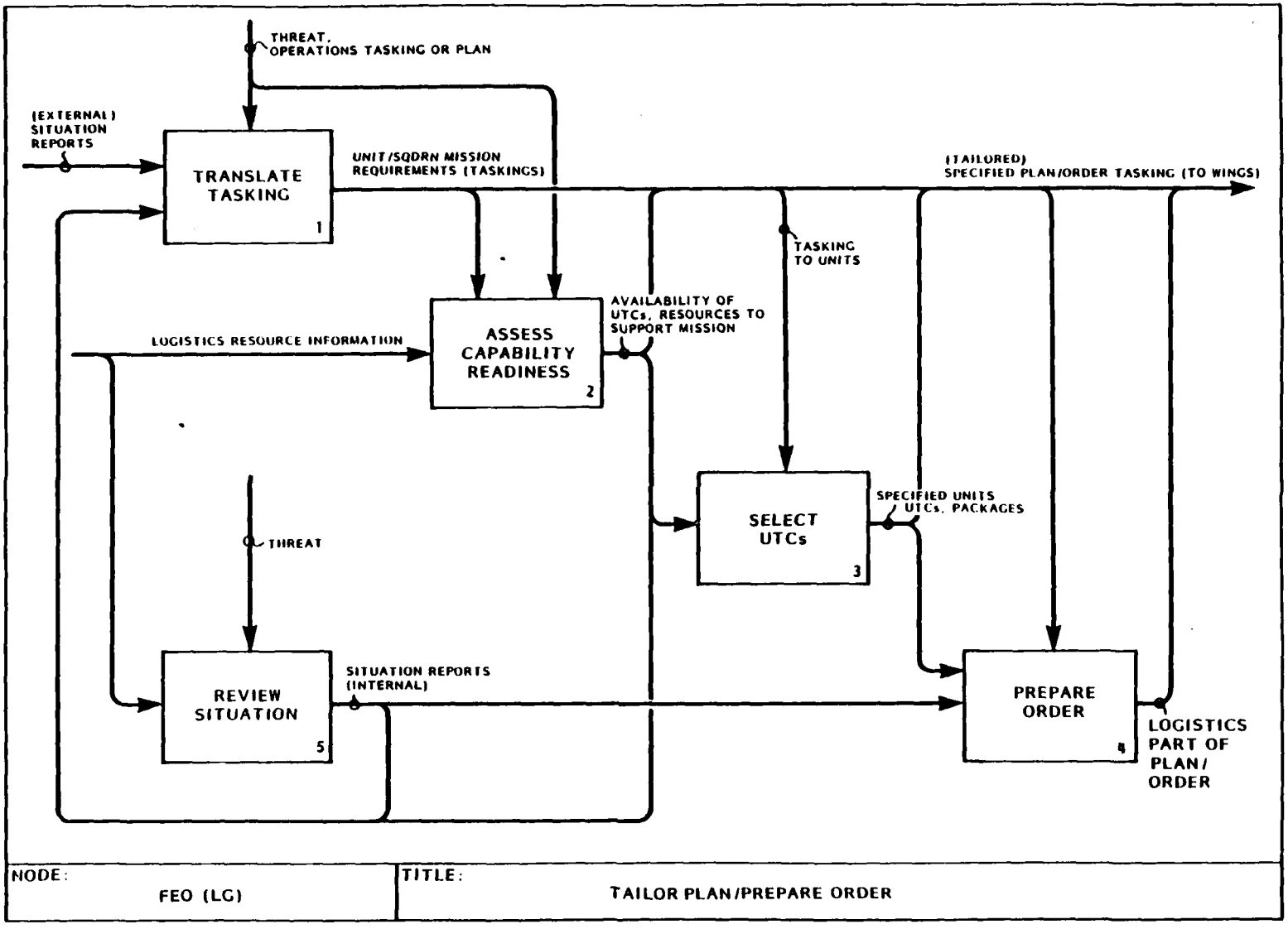


NODE:	TITLE:
HDTL AØ	DEVELOP PLAN/TASKING

(FEO) Tailor Plan/Prepare Order, Logistics View (HQ USAFE)

Converting Operations Plans to tasking orders and specific plans is described. Guided by Operations' tasking or plans and threat information, Logistics must translate and match the aircraft (PAA) UTC requirements to logistics UTCs (Box 1), and translate mission requirements into logistics terms. These requirements are then matched against logistics resource information (Box 2), and a decision is reached (Box 3), about what specific support resources can respond to tasking requirements. These units are included in the operations order (Box 4). When rapid responses are needed the process is compressed. Note that outputs from Boxes 2 and 3 can go out directly without iteration or notional tasking. The available UTCs or support items would be included in the execute order.

Box 5 provides situation information and updates the status of resources damaged, expended, malfunctioning, or consumed. These reports require realtime information about resource status from the source base and any supporting bases involved.


THREAT, OPERATIONS TASKING OR PLAN
(EXTERNAL) SITUATION REPORTS
TRANSLATE TASKING
1
UNIT/SQDRN MISSION REQUIREMENTS (TASKINGS)
(TAILORED) SPECIFIED PLAN/ORDER TASKING (TO WINGS)
TASKING TO UNITS
AVAILABILITY OF UTCs, RESOURCES TO SUPPORT MISSION
LOGISTICS RESOURCE INFORMATION
ASSESS CAPABILITY READINESS
2
SELECT UTCs
3
SPECIFIED UNITS UTCs, PACKAGES
THREAT
REVIEW SITUATION
5
SITUATION REPORTS (INTERNAL)
PREPARE ORDER
4
LOGISTICS PART OF PLAN/ ORDER
NODE:
FEO (LG)
TITLE:
TAILOR PLAN/PREPARE ORDER

HDTM AO Develop Plan/Tasking, Movement View (HQ USAFE)

The movement view of developing plans and tasking starts with assimilating requirements (Box 1), next locating the support available (Box 2), and once identified, distributing tasking among transportation resources available. A flow plan to meet closure requirements can then be produced (Box 3).

This logistics function is separated from the previous HQ USAFE Logistics view because various kinds of tranportation are required and USAFE is responsible for tasking. USAFE depends on transported resources, especially parts and spares arriving at ports; HQ USAFE must see that the resources arrive at the point of intended use within the time required.

Working with host transportation management adds communication requirements. Dialog to determine how much support will be provided by host nations and what shortfalls exist (Box 2) is also required. Because of the multi-service and agency requirement and dependence on some host nation services for surface tranportation, a network of LOCs must also be monitored and verified. At HQ USAFE, MAC division managers handle airlift requirements. These are input to MAC from Logistics and originate from the Wing when tasking has been decided by Operations. Staging and flow proceed according to the MAC system.

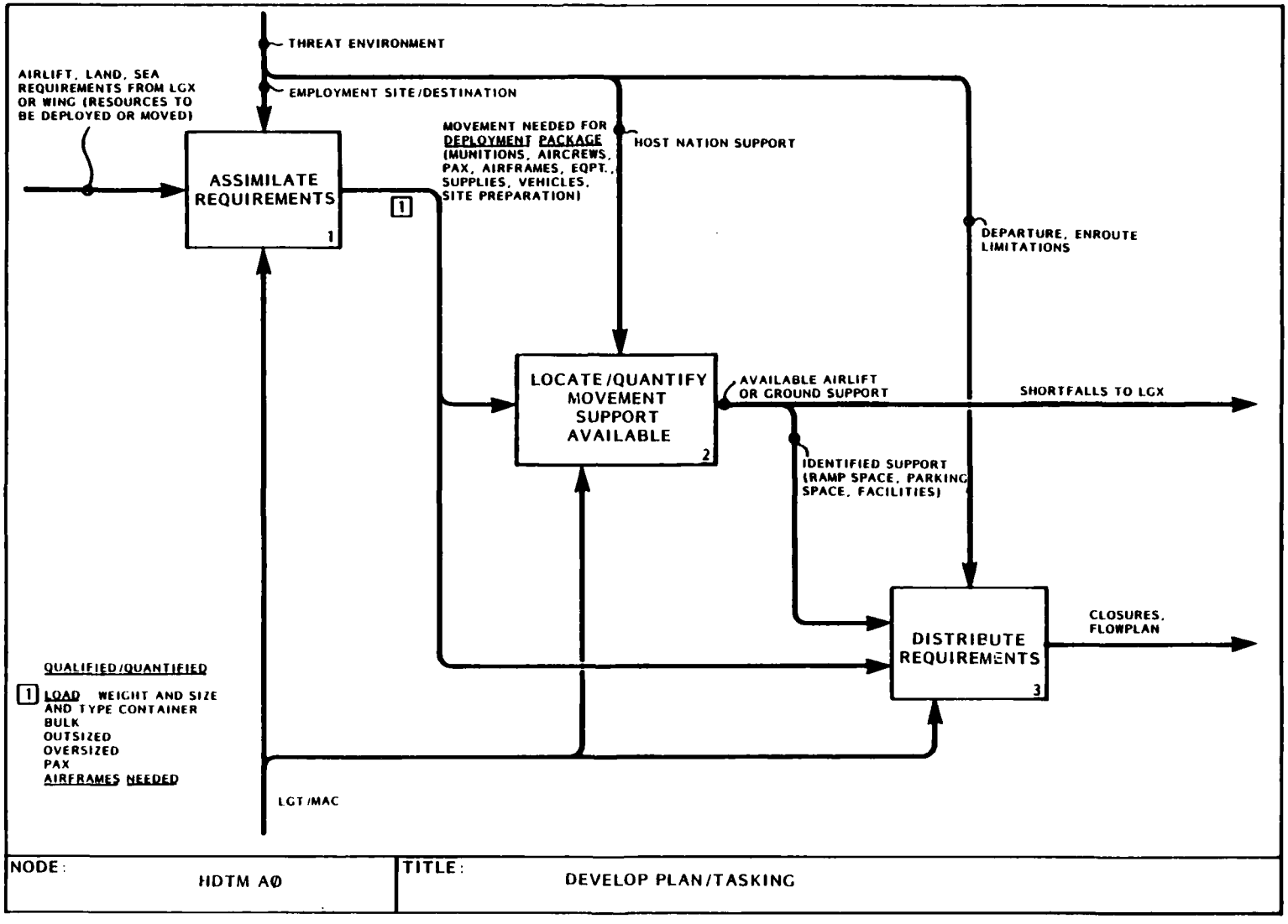
Quantifying available movement requires that all USAFE transportation requirements be evaluated and translated by type, weight, size, and volume of load. Load requirements are then expressed in terms of the type and number of carriers or airframes required. Aircraft staged, current commitments, priorities, and capability to deliver the resources within the time needed, are MAC management and information concerns.

Assessing movement capability also requires current information about the base facilities that are to receive the load (Box 3). Adequate ramp space and parking must be verified so that offloading can occur in time to be useful for the tasking or to sustain sortie generation at a base. Intricate deployment planning and rigid schedules are driven by the required closures times.

Most important to movement planners and managers is the throughput capacity of an aerialport. The number of sorties that can be accommodated at a port or base over some period of time is required to assess readiness. The type of aircraft and size of load to be offloaded and delivered are part of the measurement as well as the impact of other aircraft using the facility.

The activities in the opposing diagram are performed when developing plans and tasking transportation carriers.

In USAFE, sustaining and surviving depend on arrival of resources at ports. Expediting the movement of the resource to its point of intended use, after it reaches the port, is the main objective of USAFE movement managers.

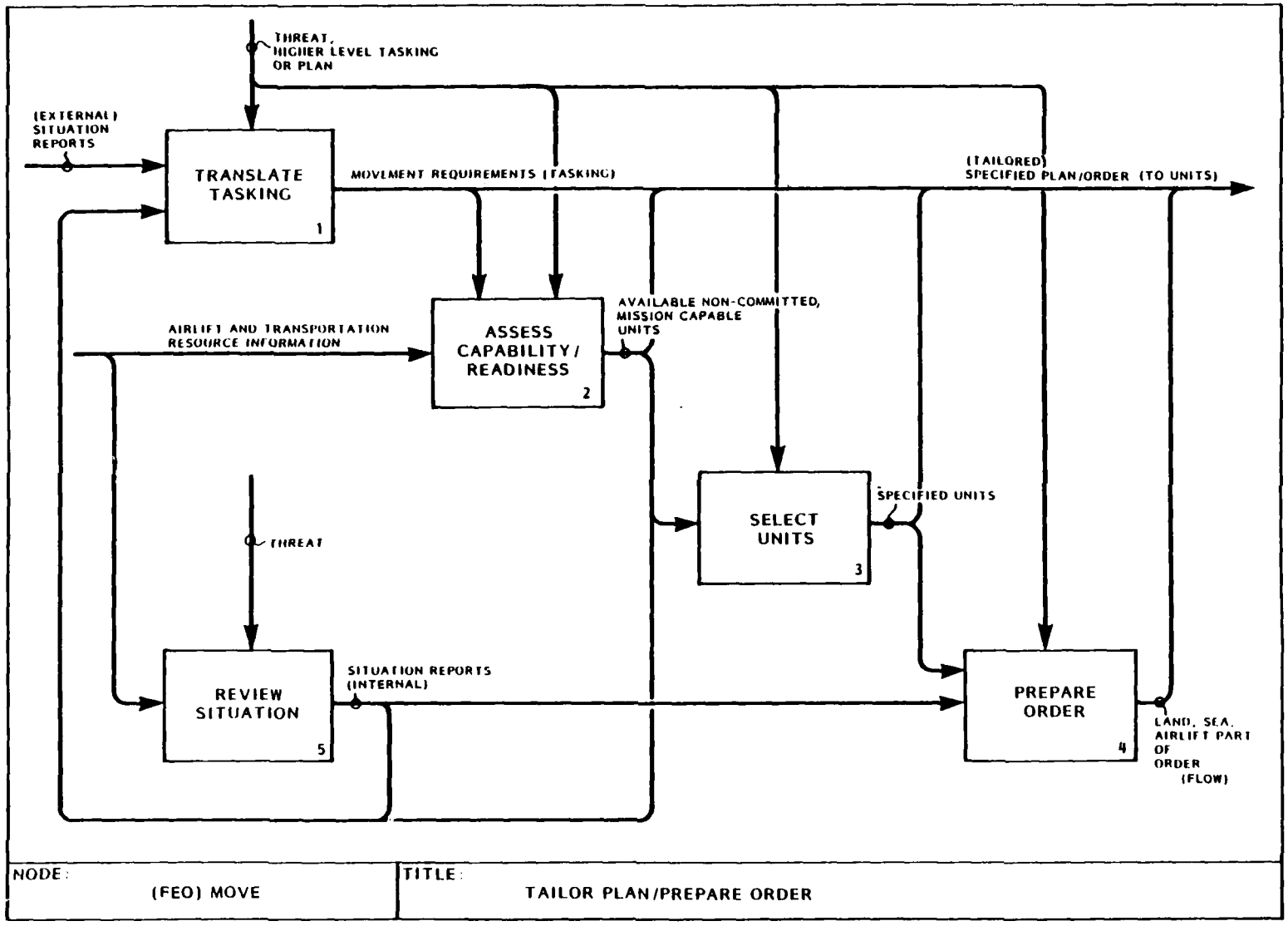


NODE:	TITLE:
HDTM A0	DEVELOP PLAN/TASKING

FEO Tailor Plan/Prepare Order, Movement View (HQ USAFE)

This diagram is included with develop tasking to describe rapid response to tasking. Tasking requirements come to MAC managers as type and size of load to be moved. MAC then converts the load to dimensions that can be converted to airframe requirements. If land transportation is necessary, tonnage to be hauled to a location within a certain time is specified (Box 1). Transportation managers, given reponse times, number of UTCs, number of PAAs, and destination (or point of intended use), compute airframes needed and tonnage to be hauled. Next, they locate support to move the load. Tranportation managers locate available, mission capable, uncommitted units. Options, if they exist, are located; this information is added to operations orders or to a tailored plan. If time allows, managers establish priorities and select units among options (Box 3).

At this point, staging can begin and the flow pattern can get underway. (This activity can be notional as part of Operations Plans.) When a decision to execute is made, orders are written (Box 4). Upon a command to carry out the tasking, uploading, hauling, and offloading of resources proceed.


THREAT, HIGHER LEVEL TASKING OR PLAN
(EXTERNAL) SITUATION REPORTS
TRANSLATE TASKING
1
MOVEMENT REQUIREMENTS (TASKING)
(TAILORED) SPECIFIED PLAN/ORDER (TO UNITS)
AIRLIFT AND TRANSPORTATION RESOURCE INFORMATION
ASSESS CAPABILITY/ READINESS
2
AVAILABLE NON-COMMITTED, MISSION CAPABLE UNITS
SELECT UNITS
3
SPECIFIED UNITS
THREAT
REVIEW SITUATION
5
SITUATION REPORTS (INTERNAL)
PREPARE ORDER
4
LAND, SEA, AIRLIFT PART OF ORDER (FLOW)
NODE: (FEO) MOVE
TITLE: TAILOR PLAN/PREPARE ORDER

HMT AO Manage Tasking, Overview (HQ USAFE)

Manage Tasking describes HQ USAFE roles in providing Tactical Fighter Wing resources and managing wing tasking activities. Variable situations provide context for Headquarters activity. For example, whether the wings are in training or in combat situations, HQ USAFE has to provide resources for sustaining and surviving. The tasking source and CHOP process do not change the fact that tactical combat sorties must be supported. Functions, such as mobilizing, deploying, prepositioning, and resupplying continue. In addition, when any type of tasking arrives, except alert, units must be selected. managers must assess unit capability to respond to tasking.

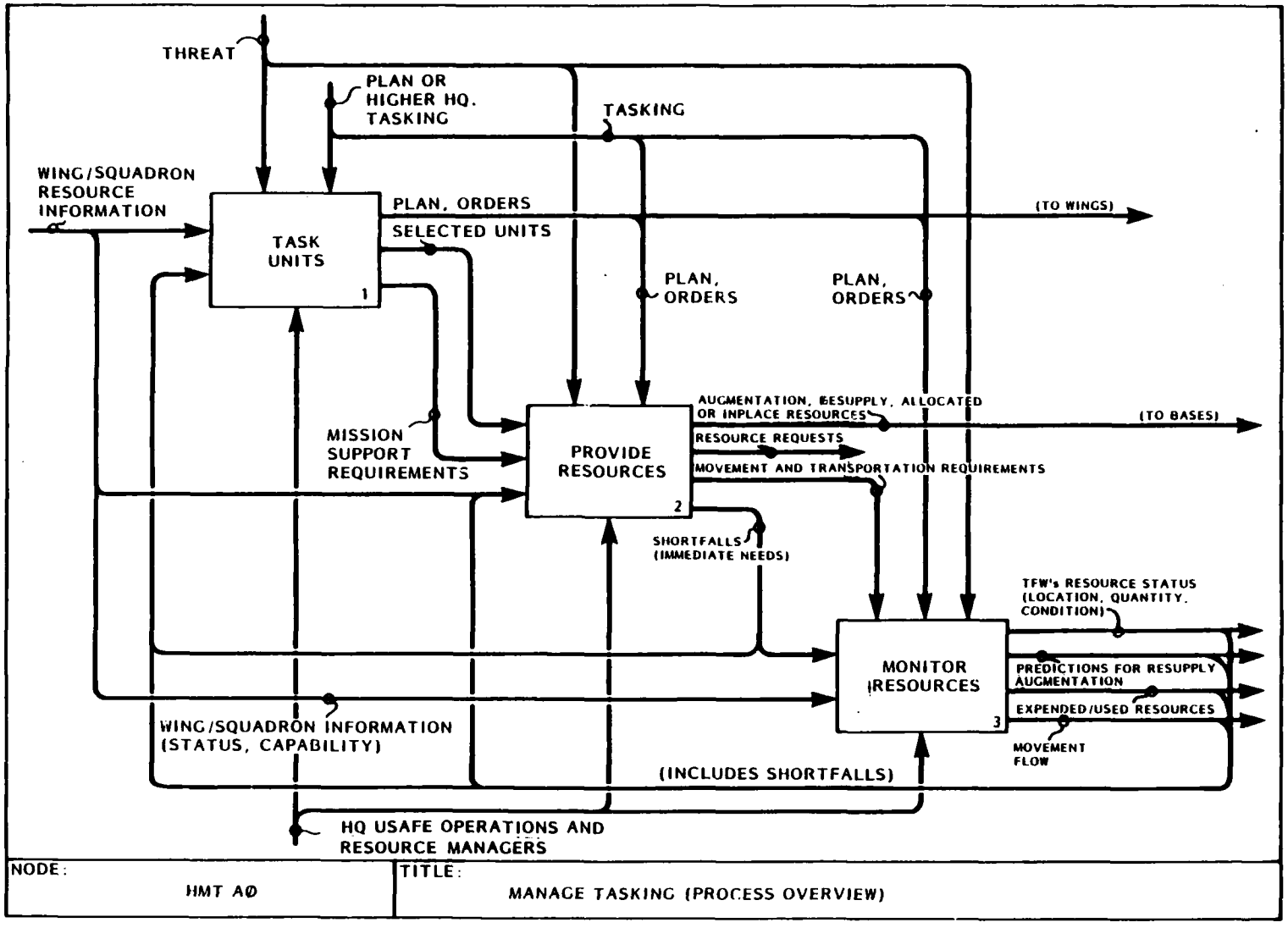
To measure unit readiness, certain elements in the tasking must be known. Plans, orders, and higher command tasking control management of execution. Without knowledge of variable tasking elements, an accurate assessment of unit capability cannot be made.

The information in Manage Tasking is transmitted and reviewed via message, telcon, directives, and orders. Direct calls to Wings and reliable information sources are relied on for immediate, near real time data required to make execution decisions.

The threat can speed up this process and increase its workload. Threat controls manage tasking. Managing USAFE Wings in an execution mode is shown here as three major ongoing activities (Boxes 1, 2, and 3). Depending on the threat, tasking can be prepared in Box 1 or be received by Box 1. Tasking from higher headquarters may be processed at Box 1 or go straight to Boxes 2 and 3. This generic process allows for variable sources of command decisions.

The management information flow depends on knowledge of what is happening to resources at Wings and Squadrons, both from incoming data to Boxes 1, 2, and 3 and from what is fed back to Boxes 2 and 1 from Monitoring Resources in Box 3. HQ USAFE managers provide resources where they are needed, Box 2, prepare requests for more resources needed, Box 2, and appraise HQ USAF or AFLC of predicted needs. Based on status summaries sent to HQ USAF or to AFLC and other major support commands (Box 3), such as MAC, resources are transported and delivered to USAFE bases.

Another major task at HQ USAFE is to track resource movement and to know resource location. Resource managers compile shortfalls and present problem areas to theater Commanders for decisions about resupply and augmentation.

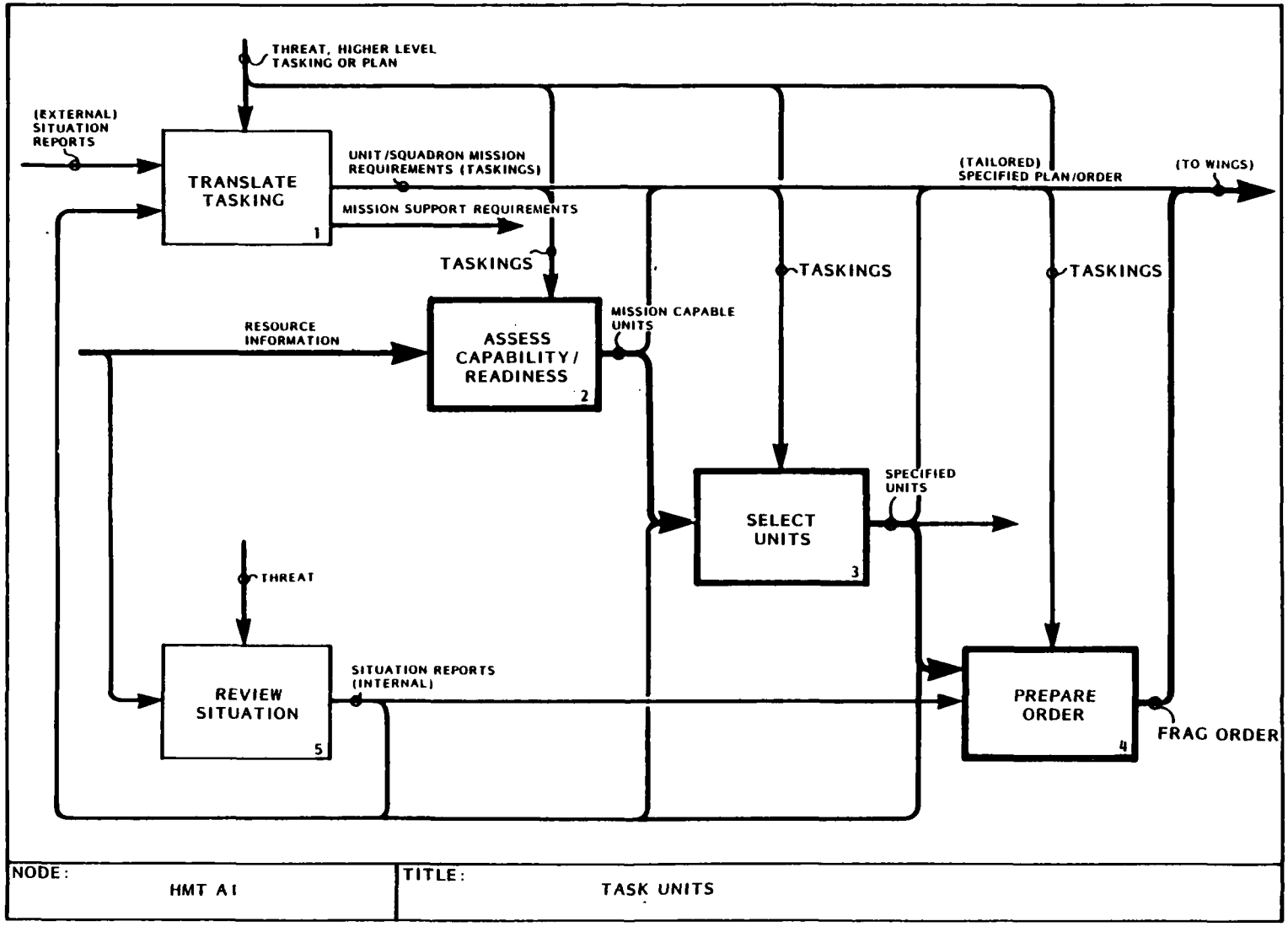


NODE:	TITLE:
HMT A0	MANAGE TASKING (PROCESS OVERVIEW)

HMT A1 Task Units, Operations View (HQ USAFE)

Taskings from Box 1 entail training, combat, and alert requirements. The second output refers to special taskings where additional support may be required. After variable tasking elements are translated into resource requirements (Box 1), such as location, time, number of PAA or MDS, munitions, fuel, and UTC, Operations assesses units that can respond (Box 2). The tasking may be so direct that all that is needed is acknowledgement. Units are selected (Box 3), with dialog at Wing and Squadron, depending on threat and urgency. Through fragmentary order or other means, the order is prepared and sent (Box 4).

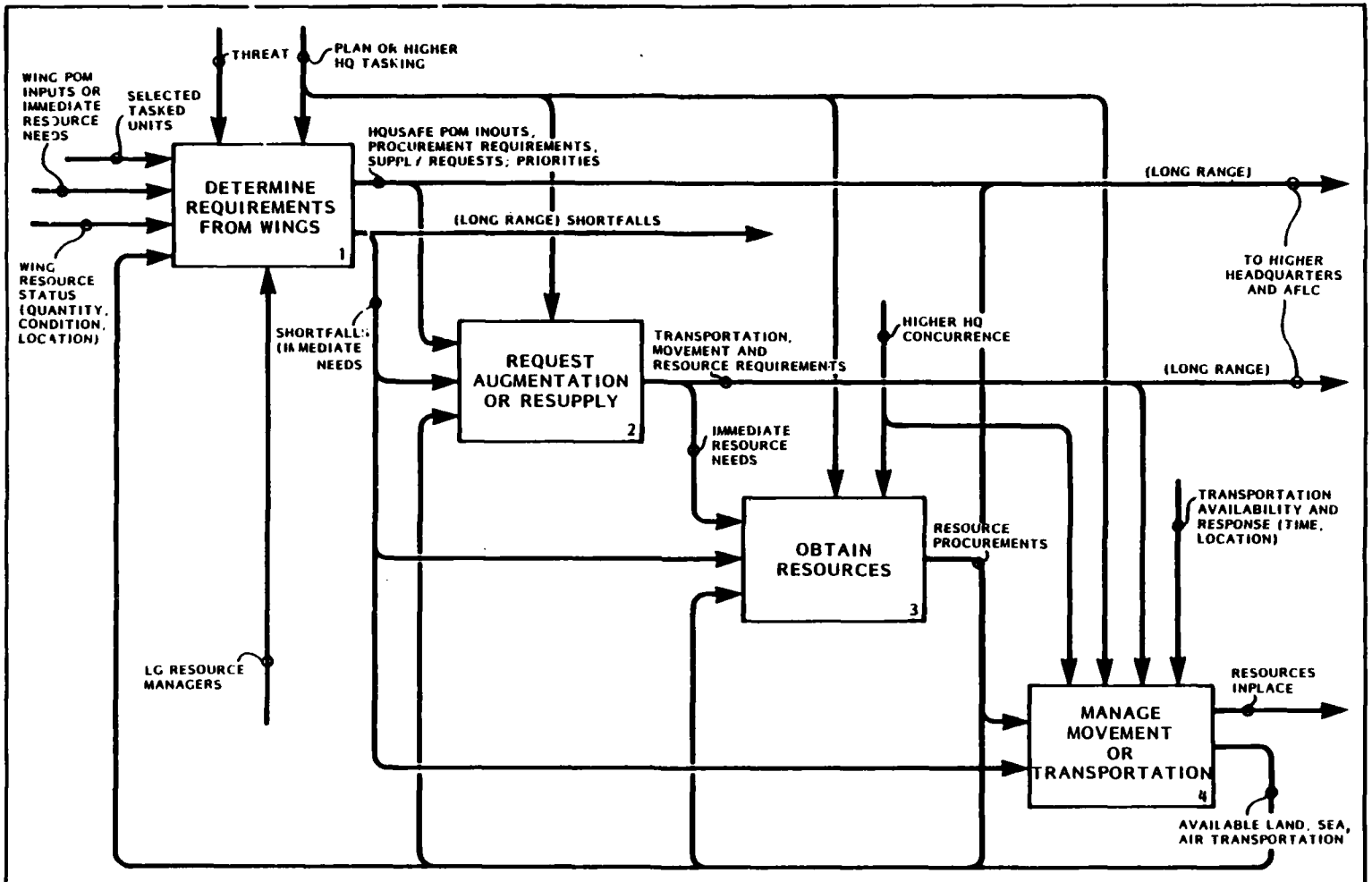
Box 5 is iterated for reports about affected resources, accomplishments, and problems, feedback, and briefed in Box 1. Box 1 activity continually requires resource information from Box 2. When threat level rises to warrant a go decision, Commanders must know the immediate disposition of the selected, or fragged units to reach go or no go decisions.


THREAT, HIGHER LEVEL TASKING OR PLAN
(EXTERNAL) SITUATION REPORTS
TRANSLATE TASKING
1
UNIT/SQUADRON MISSION REQUIREMENTS (TASKINGS)
MISSION SUPPORT REQUIREMENTS
(TAILORED) SPECIFIED PLAN/ORDER
(TO WINGS)
TASKINGS
TASKINGS
TASKINGS
RESOURCE INFORMATION
ASSESS CAPABILITY/ READINESS
2
MISSION CAPABLE UNITS
SELECT UNITS
3
SPECIFIED UNITS
THREAT
REVIEW SITUATION
5
SITUATION REPORTS (INTERNAL)
PREPARE ORDER
4
FRAG ORDER
NODE:
HMT A1
TITLE:
TASK UNITS

HMT A2 Provide Resources, Logistics View (HQ USAFE)

Provision is a logistics function; that viewpoint is taken to describe Logistics management activities. Given selected tasked units as Box 1 input, managers convert these tasked resources to procurement needs, supply requests, and required operational capability for budget determination. Daily, Wing resource status allows an assessment of shortfalls so that preventive measures can be started to ensure adequate Wing resources. When shortfalls are drastic or priorities dictate, Box 2 arranges for augmentation or resupply so that sorties and base activities can continue. If immediate procurement is needed, the information is passed to Box 3 for purchase, and it either goes out with output from Box 1 or back to Box 2 so that the resource needs can be prioritized and quickly processed. When resources arrive at ports or must be moved in Europe, Box 4 activity ensures that they are delivered and in place.

The provision system is complex. Pressing requirements must be determined and satisfied in time to be of use. Prepositioning and moving resources for balance or to meet stringent demands require current information about resources so that decisions can be made rapidly and confidently.



NODE:	TITLE:
HMT A2	PROVIDE RESOURCES

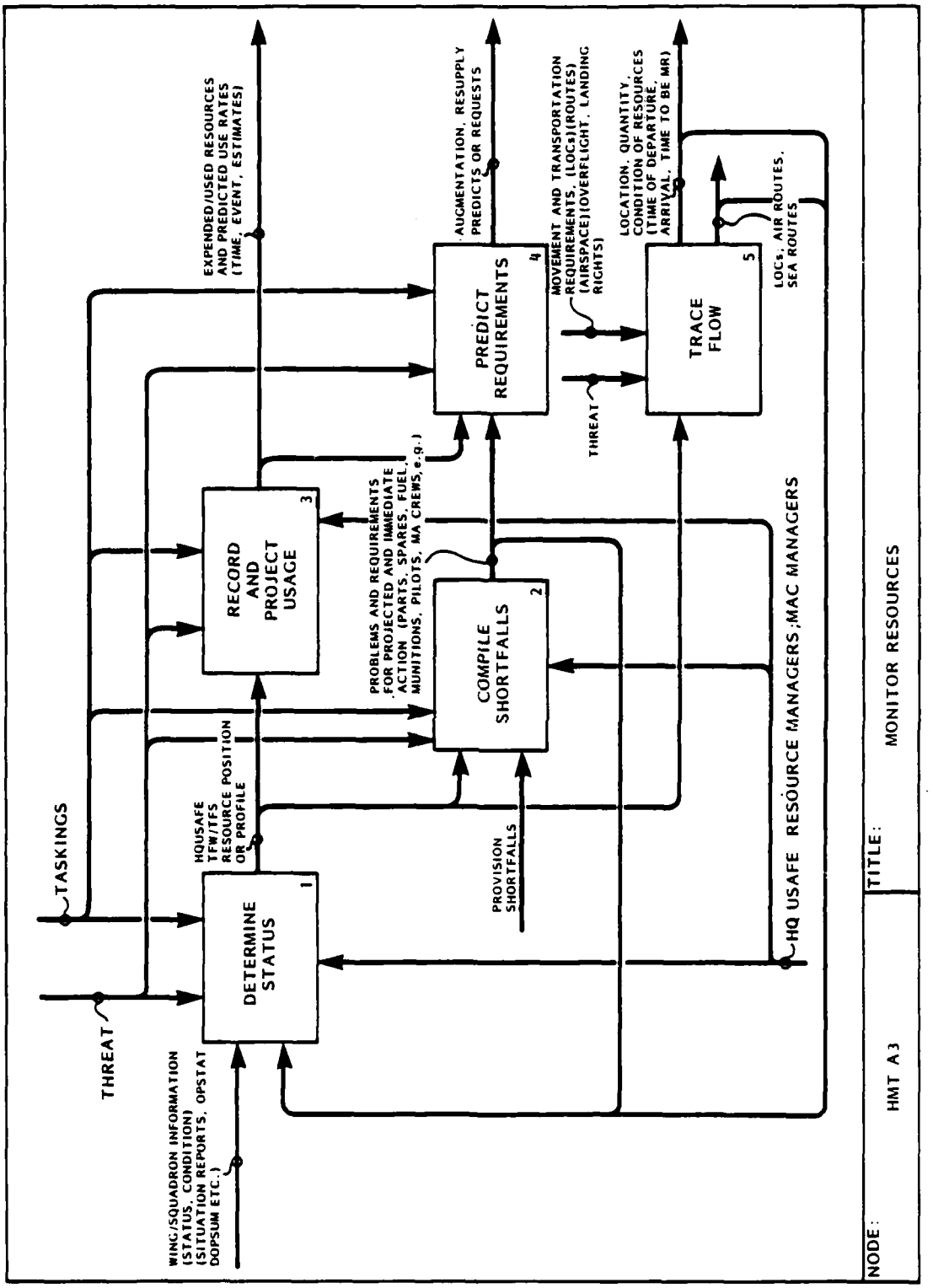
HMT A3 Monitor Resources, Movement View (HQ USAFE)

During contingency or war, HQ USAFE is responsible for getting required resources to bases. The OSC becomes a central location for monitoring resource movement. Resource movement management requires readiness information during tasking execution.

The diagram shows a generic monitoring process that entails more than tracking status boards. Various kinds of communications and dialogs occur between resource managers and monitors. The process shown produces decision information used in combat as well as in daily direction of resources, such as munitions, aircraft, fuel, personnel, engineering, and survival equipment for USAFE MOBs, COBs, and FOLs.

Using Wing input during training and combat, functional area resource managers obtain and record resource status on boards, briefing slides, or via video equipment (Box 1). From these reports at MOBs, COBs, and FOLs, managers project usage (Box 3) for Commanders, compile shortfalls for action decisions (Box 2), and make requests for augmentees, resource movement, and resupply (Box 4).

Controlled by taskings (Box 1), and threat, resource managers provide and deliver resources where they are needed. Knowing where resources are at any one time requires a sizeable amount of information (Box 5). Duration that operations can sustain at current use rates, time required to deliver resources to point of intended use, and supportability of the mission must be known.



HMT A3 Monitor Resources

E (FEO) Execute Tasking (Wing)

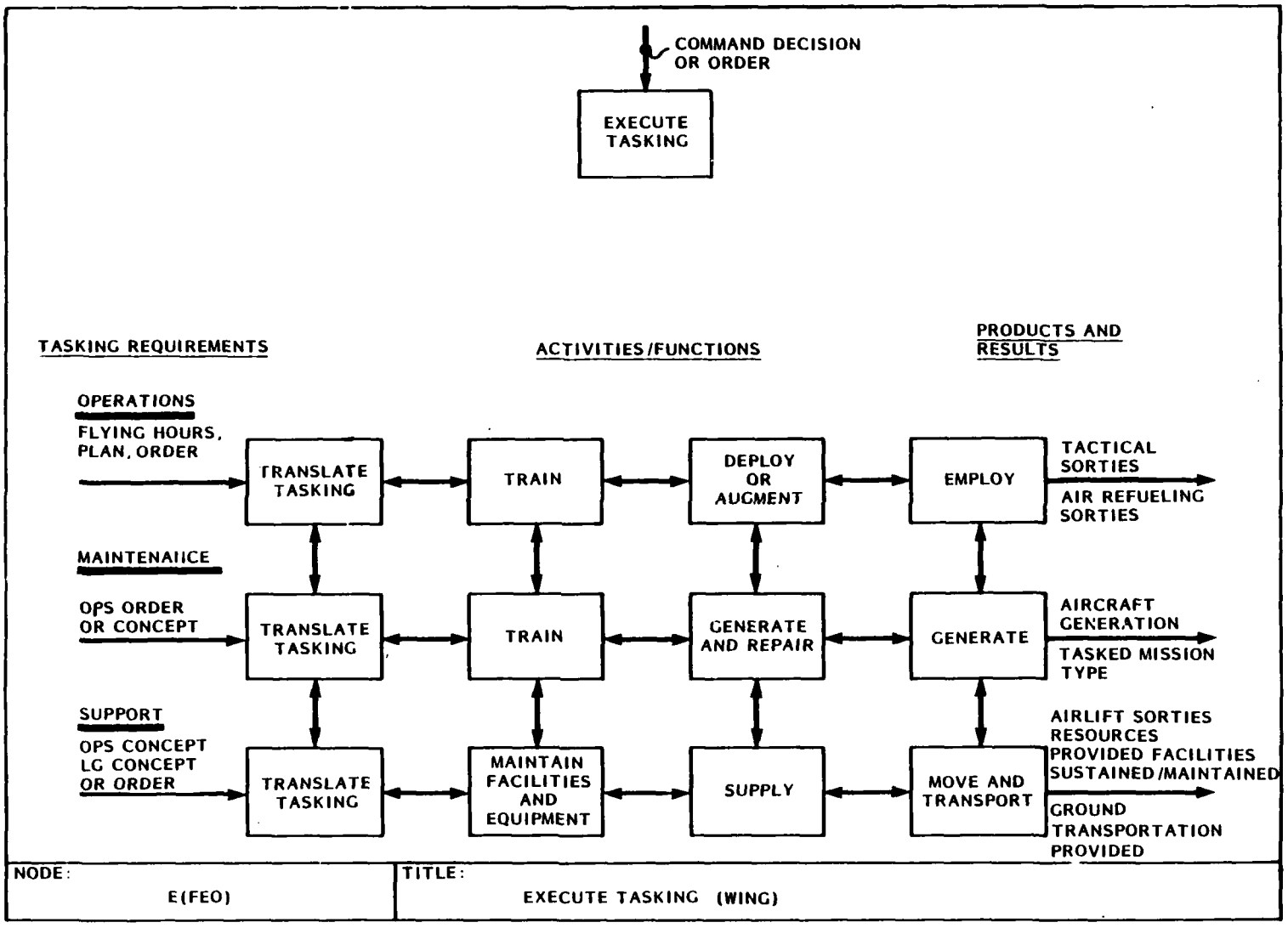
This functional blocking shows major activities performed by Operations, Maintenance, and support. Tasking input (far left) prescribes what is to be accomplished by the functions. In Operations, for example, combat and training taskings guide daily training proficiency. Combat ready aircrews then deploy, augment, or employ, producing the end product of tasking, tactical sorties.

Maintenance, as shown, supports Operations. Crews train to combat tasking for generation and repair of aircraft. Maintenance satisfies Operations' flying program and combat requirements. An Operations order or flying program specifying sortie configuration, quantity, and special generation requirements guides maintenance in setting sortie goals to meet a flying schedule.

Supporting both Maintenance and Operations are the support functions and services. Without operating equipment, buildings, runways, transportation, and material, sorties cannot be sustained or flying program goals met.

This partitioning gives context to Execute Tasking at Wing level.

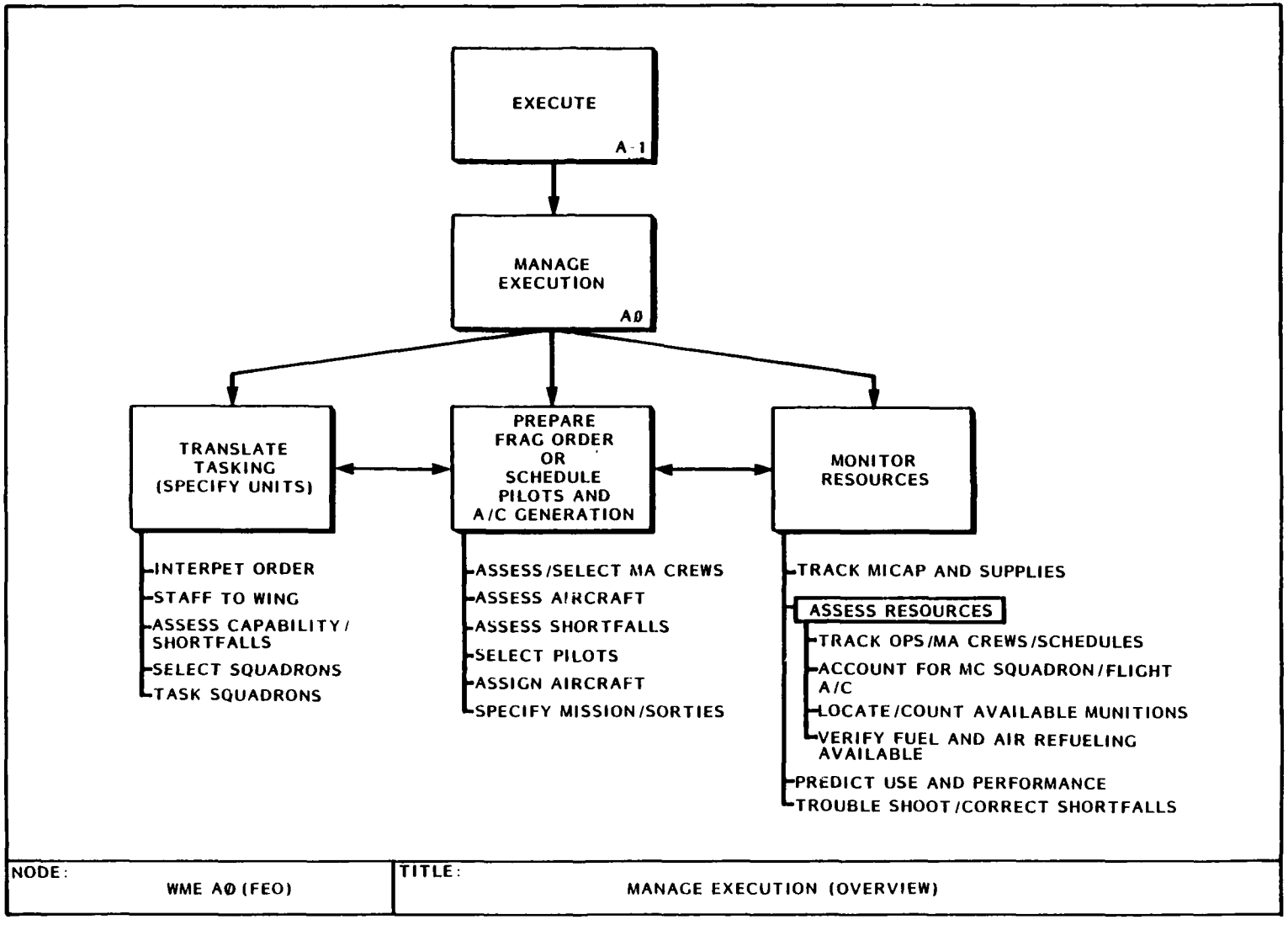
This diagram shows multiple viewpoints described in succeeding Wing/squadron level analysis: Operations, Maintenance, and combat support. Activity moves to the right and upwards towards the final result, the combat sortie. The time from tasking to completion of the sortie is compressed as activity proceeds to the right.


COMMAND DECISION OR ORDER
EXECUTE TASKING
TASKING REQUIREMENTS
ACTIVITIES/FUNCTIONS
PRODUCTS AND RESULTS
OPERATIONS
FLYING HOURS, PLAN, ORDER
MAINTENAIICE
OPS ORDER OR CONCEPT
SUPPORT
OPS CONCEPT LG CONCEPT OR ORDER
TRANSLATE TASKING
TRANSLATE TASKING
TRANSLATE TASKING
TRAIN
TRAIN
MAINTAIN FACILITIES AND EQUIPMENT
DEPLOY OR AUGMENT
GENERATE AND REPAIR
SUPPLY
EMPLOY
GENERATE
MOVE AND TRANSPORT
TACTICAL SORTIES
AIR REFUELING SORTIES
AIRCRAFT GENERATION
TASKED MISSION TYPE
AIRLIFT SORTIES
RESOURCES PROVIDED FACILITIES SUSTAINED/MAINTAINED
GROUND TRANSPORTATION PROVIDED
NODE:
E(FEO)
TITLE:
EXECUTE TASKING (WING)

WME AO (FEO) Manage Execution, Process Overview (Wing)

Under the major function Execute, management is broken into three functional subdivisions. Each is related. This overview shows the main tasks performed in managing the squadrons. These tasks were chosen to pinpoint the decisions made when managing Wing/squadron taskings and resources. Operations, Maintenance, and Combat Support are narrowed to the essential elements of information that relate to readiness or stating squadron capability.

This overview contains three management decision modules. Notice that under Monitor Resources, "Assess Resources" is highlighted. This task furnishes input to readiness assessment.

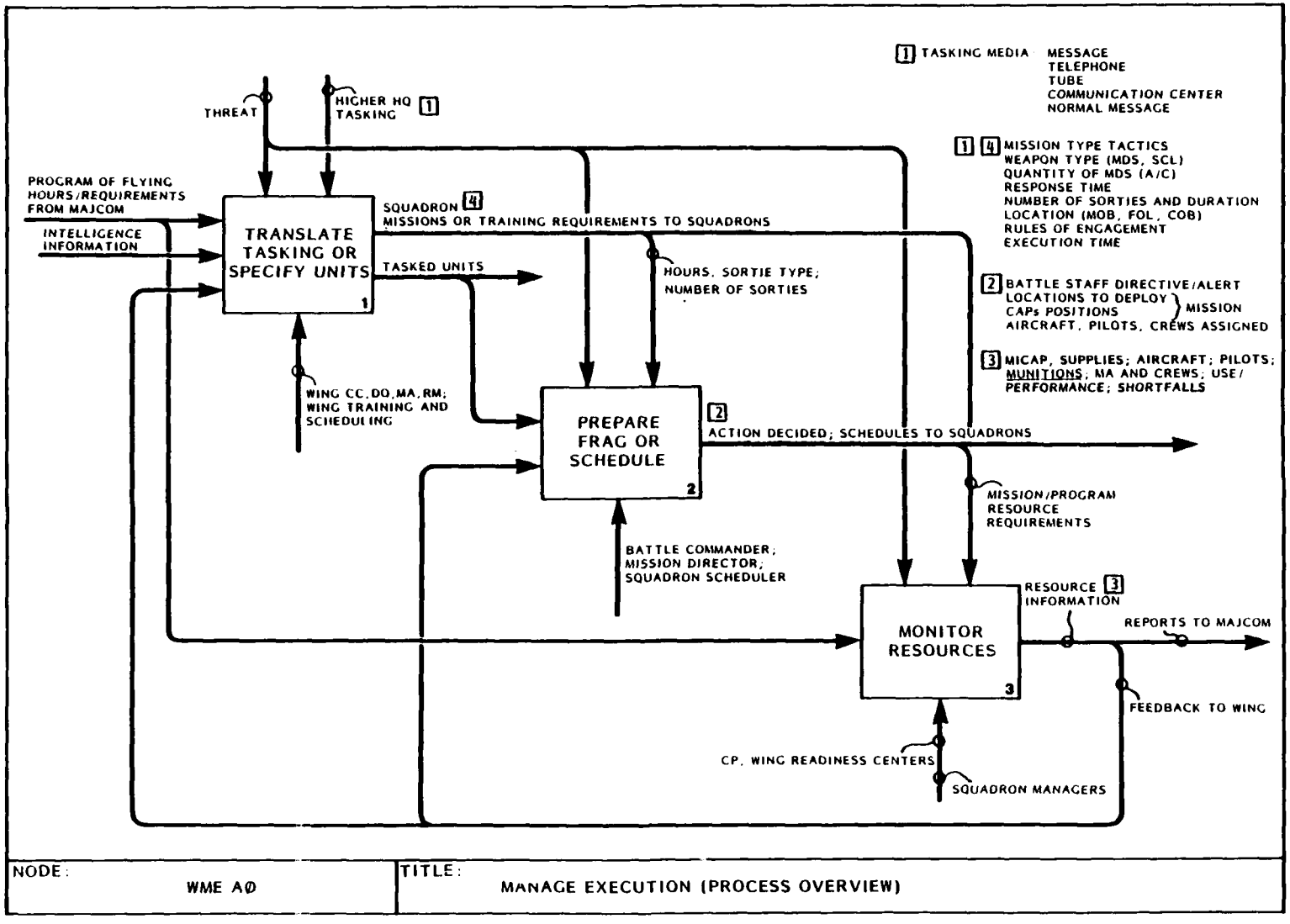

EXECUTE
A-1
MANAGE EXECUTION
AØ
TRANSLATE TASKING (SPECIFY UNITS)
PREPARE FRAG ORDER OR SCHEDULE PILOTS AND A/C GENERATION
MONITOR RESOURCES
INTERPET ORDER
STAFF TO WING
ASSESS CAPABILITY/ SHORTFALLS
SELECT SQUADRONS
TASK SQUADRONS
ASSESS/SELECT MA CREWS
ASSESS AIRCRAFT
ASSESS SHORTFALLS
SELECT PILOTS
ASSIGN AIRCRAFT
SPECIFY MISSION/SORTIES
TRACK MICAP AND SUPPLIES
ASSESS RESOURCES
TRACK OPS/MA CREWS/SCHEDULES
ACCOUNT FOR MC SQUADRON/FLIGHT A/C
LOCATE/COUNT AVAILABLE MUNITIONS
VERIFY FUEL AND AIR REFUELING AVAILABLE
PREDICT USE AND PERFORMANCE
TROUBLE SHOOT/CORRECT SHORTFALLS
NODE:
WME AØ (FEO)
TITLE:
MANAGE EXECUTION (OVERVIEW)

WME AO Manage Execution, Process Overview (Wing)

The process starts with receiving tasking (Box 1), either as the long range yearly flying program to be translated and designated to squadrons or as a specific task ordered by a higher Headquarters. Variable information, depending on the threat or situation, is available to Wing managers. Squadrons are tasked to fly training sorties, or combat missions, or special tasking. The duration, type, and number of sorties are specified for tasked units. If the tasking is alert and requires a rapid response, the translation (Box 1) is rapid, as for a warning or alert. In this case, the alert response proceeds. If the case is to deploy or respond to special tasking, an order to squadrons or a launch schedule must be prepared (Box 2).

In either crises or peacetime daily accomplishments, resources are checked, tracked, counted, repaired, resupplied, and replaced (Box 3). The health of the fleet is a constant Wing management concern.

The process shown is iterative, and the functions occur concurrently. The inputs to boxes and outputs from boxes are continually received, processed, and conveyed to squadrons and base support personnel to carry out daily business.



NODE:	TITLE:
WME A0	MANAGE EXECUTION (PROCESS OVERVIEW)

WME A1 Translate Tasking, Specify Units (Wing)

The first subfunction of manage execution at the Wing is Translate Tasking. Depending on the threat or requirement, one, two, or all of the functions will be carried out. The longer the time allowed to respond, the more comprehensive the process. In certain cases the activity can proceed from Box 1 to Box 4, back to Box 3, then back to Box 2 or Box 1, 4, and 5 are on the main path, however. When the units are selected, (Box 4), except alert, there is a continual assessment of mission capability. Depending on their qualifications and capability, squadrons are selected and tasked to fly the mission (Box 5).

The result of this process is the continual feedback from squadron to Wing management; Wing reports, in turn, must be conveyed to MAJCOM. Available mission ready aircraft, aircrews, and support resources must be known. The information in Box 3 is essential to make decisions affecting unit response, either as candidates to be tasked, to be scheduled, or to be fragged.

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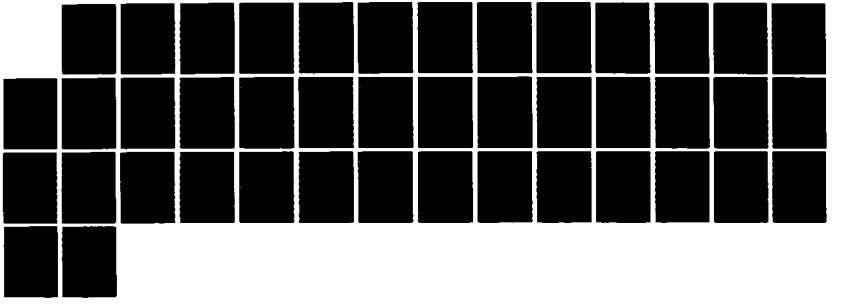
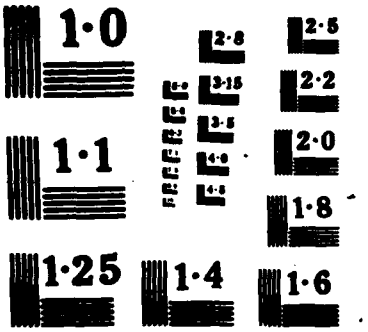
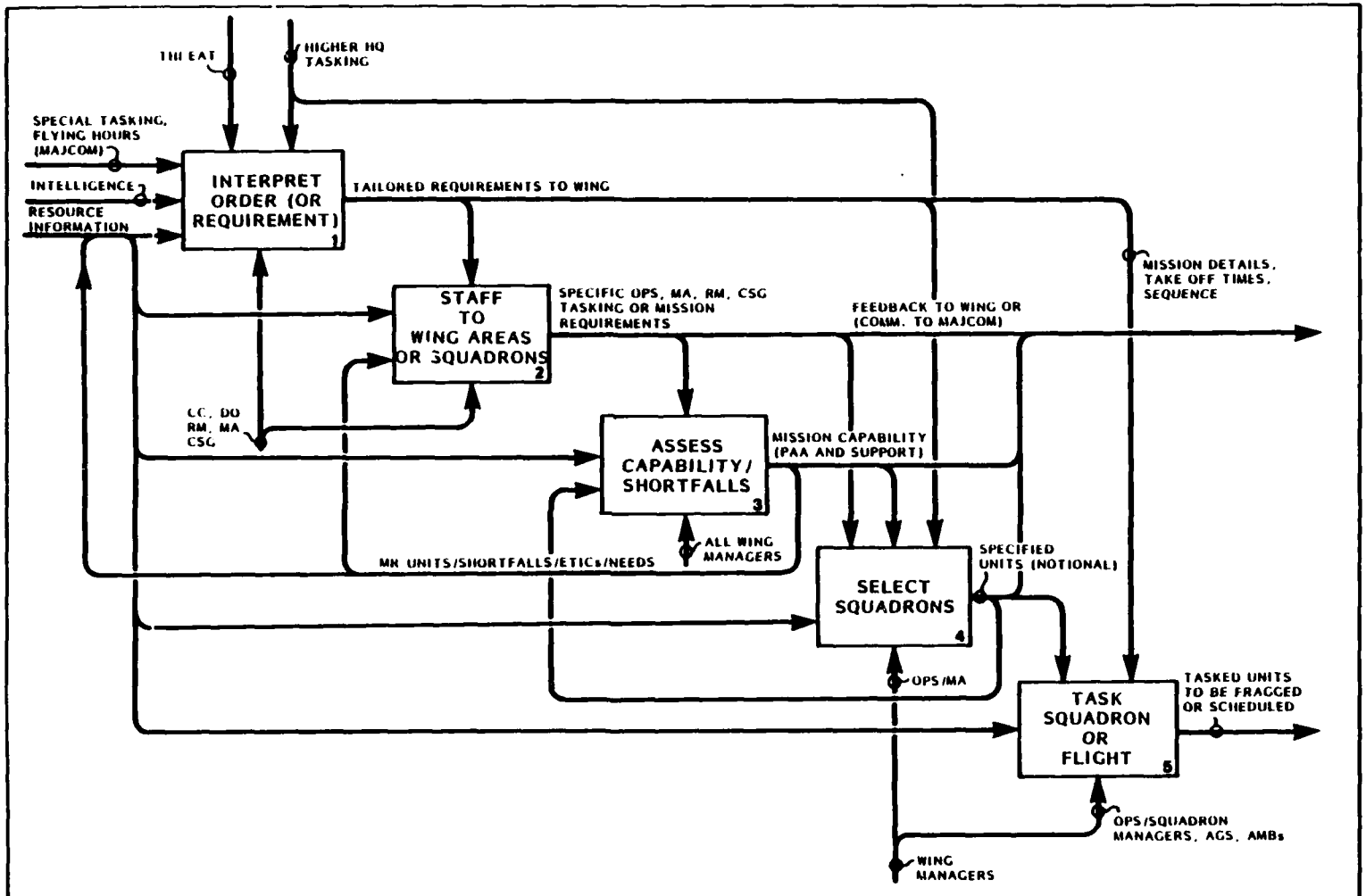


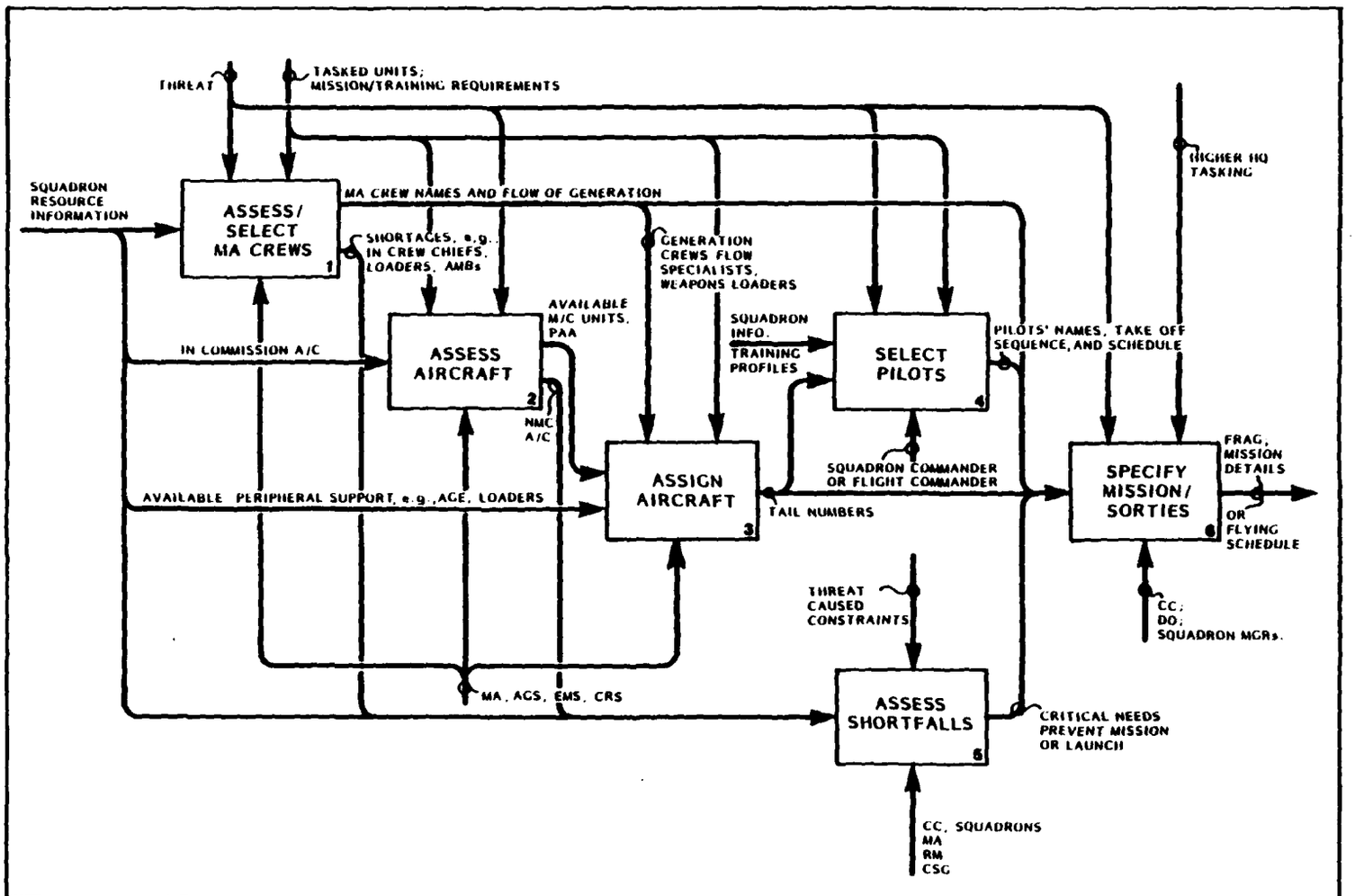

1·0
1·1
1·25
1·4
1·6
1·8
2·0
2·2
2·5



NODE:	TITLE:
WME A1	TRANSLATE TASKING (SPECIFY UNITS)

WMEA2 Prepare Fragmentary Order, Schedule Pilots and Generation (Wing)

Before assigning specific aircraft (Box 3), aircrews (Box 4), and maintenance crews (Box 1) to the daily schedule or to respond to combat tasking, mission controllers, directors, or schedulers must know precise squadron and support resource information (Boxes 1, 2, 5). Availability of mission qualified, ready aircrews and crew chiefs, combined with mission capable aircraft, are the bases for deciding who will be tasked for combat or alert duty (Boxes 3, 4, 6). So that the training or sortie schedule is accomplished, crews and aircraft are assigned daily (Boxes 3, 4). The scheduling objective is to spread training sorties among squadrons to produce equal mission capability and qualifications (Boxes 4, 6). Wing and squadron managers decide who needs what training, depending on the entry level of the pilot or maintenance specialist when he or she comes to the squadron. Tracking, accounting, and evaluating activities provide information on each crew member in Maintenance and Operations (Inputs to Boxes 1 and 4). Skills and proficiency are continually tested. Maintenance crew chiefs and specialists form AMBs that support and control aircraft generation (Boxes 1, 3, 4). Aircrews perform scheduled training sorties on station, through exercises, or deployed off station. All of these required activities are considered, whether scheduling sorties that make up the flying program or scheduling response to tasking.

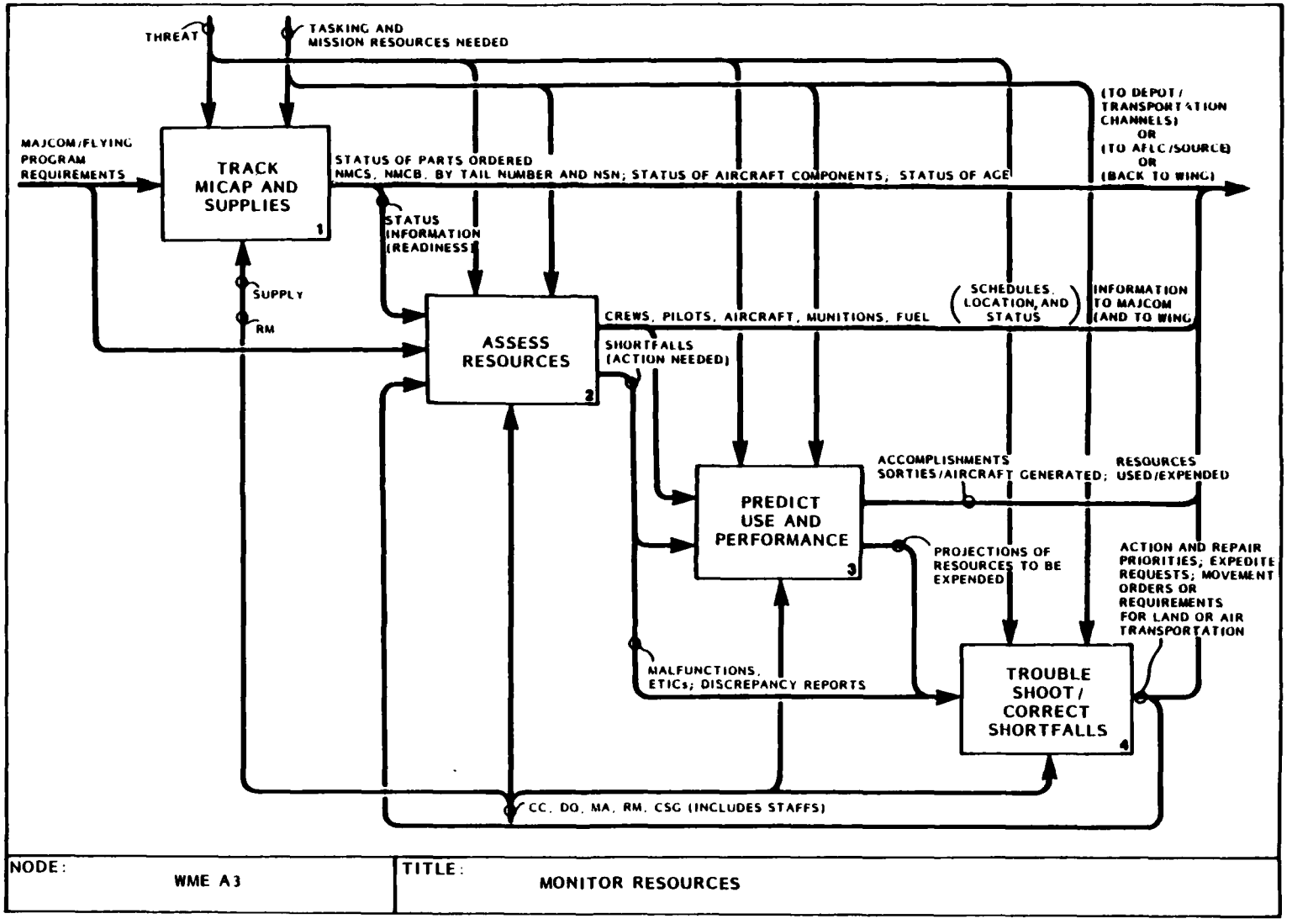


NODE:	TITLE:
WME A2	PREPARE FRAG OR SCHEDULES

WME A3 Monitor Resources (Wing)

The monitoring function is continuous at the Wing. Resources are tracked, assessed, projected, analyzed, and problems and requirements resolved. Monitoring at the Wing prevents shortages of mission essential supplies (Box 1). Resolution at AFLC or from a manufacturer may be necessary if the situation is critical. Parts, equipment breaks, and component malfunctions are watched as well as critical support vehicles and AGE. The assessment is needed (Box 2) to determine the condition of resources and fuel, supply, and munitions stocks. Status boards, daily standups, reports, briefing slides, and telephone traffic presently convey resource status. Predictions ensure that resources are being stocked, distributed, and trained for prevention of shortfalls (Box 3). Also, projections allow time to recover consumable shortages and expended equipment.

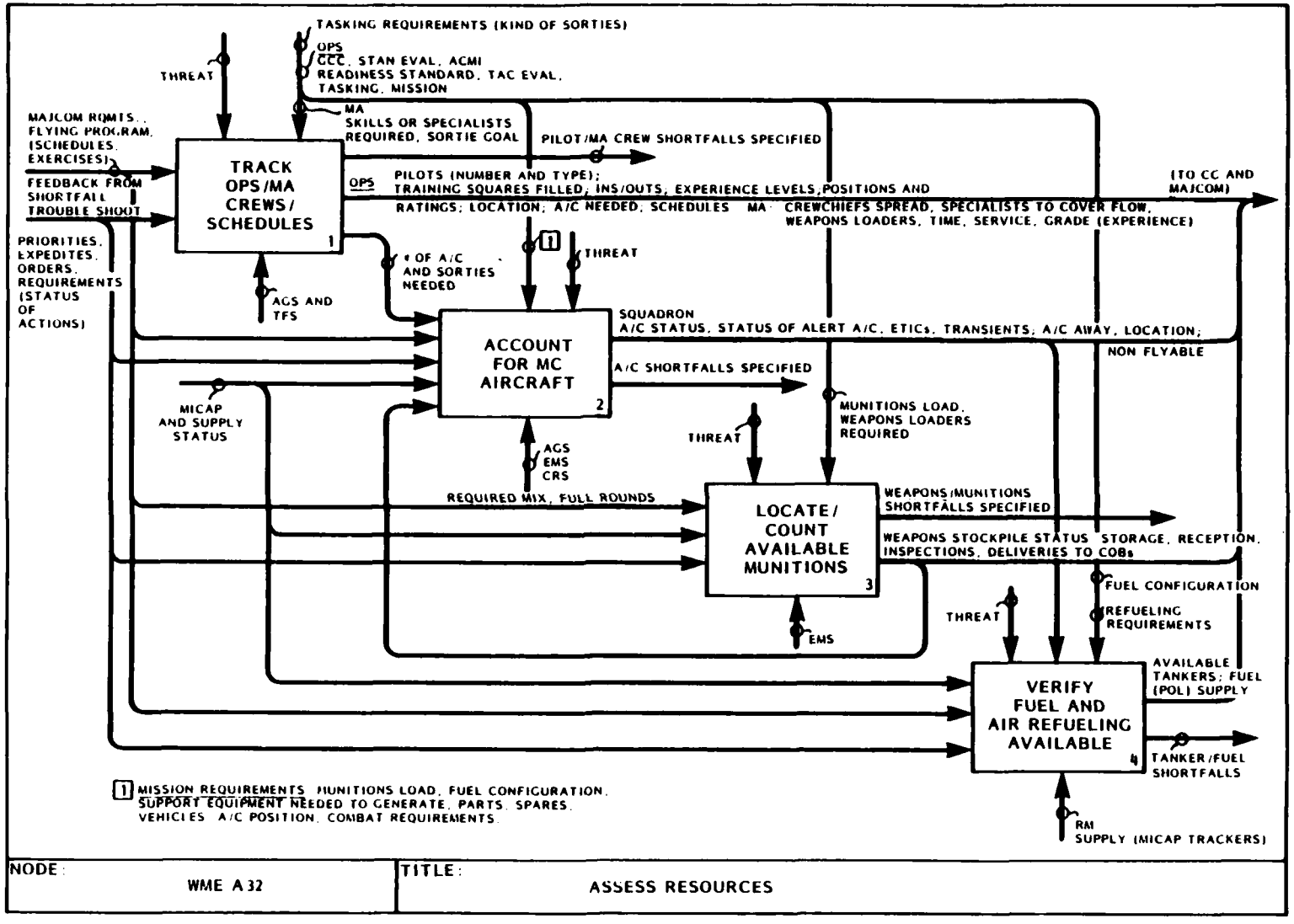
In USAFE, managers must be able to predict quantity and duration of sorties using the current available MC or MR resources. If there is a crises situation, COB and FOL responsibilities complicate knowing the immediate status of launch essential and sustaining resources. In a surge, combat, or full exercise mode, Box 4 is especially important. Someone must decide what aircraft are to be repaired and generated; what repair has priority; and what goods or resources must be replenished or augmented. Management information is rapidly communicated among functional managers. The critical requirement is to know what units are MR and how many can be generated, deployed, employed, and how long they can be sustained.



NODE:	TITLE:
WME A3	MONITOR RESOURCES

WME A32 Assess Resources (Submodule)

Assess Resources is detailed to show tasking matched against resources to assess readiness. Resources in Boxes 1, 2, 3, and 4 are essential to sortie generation. The process is described for both rapid immediate assessment and for decisions affecting long term accomplishment of sortie goals and allocated flying hours. Tasking decisions can be internal to the Wing for training to combat proficiency levels. Or, taskings may arrive suddenly from a higher Headquarters, requiring an immediate response. In either case, assessment must be performed. Notice the dependence on mission requirements (Box 2, Note 1). The direction or control specifies what the generation requirements are and also what qualifications the aircrew must have. If the task is exercise or crises, adequate munitions and weapons loaders control whether or not the mission is accomplished, (Box 3). Although fuel may be plentiful, there is concern about the kind of fueling and refueling required (Box 4). The information shown is the core of readiness measurement.



NODE:	TITLE:
WME A 32	ASSESS RESOURCES

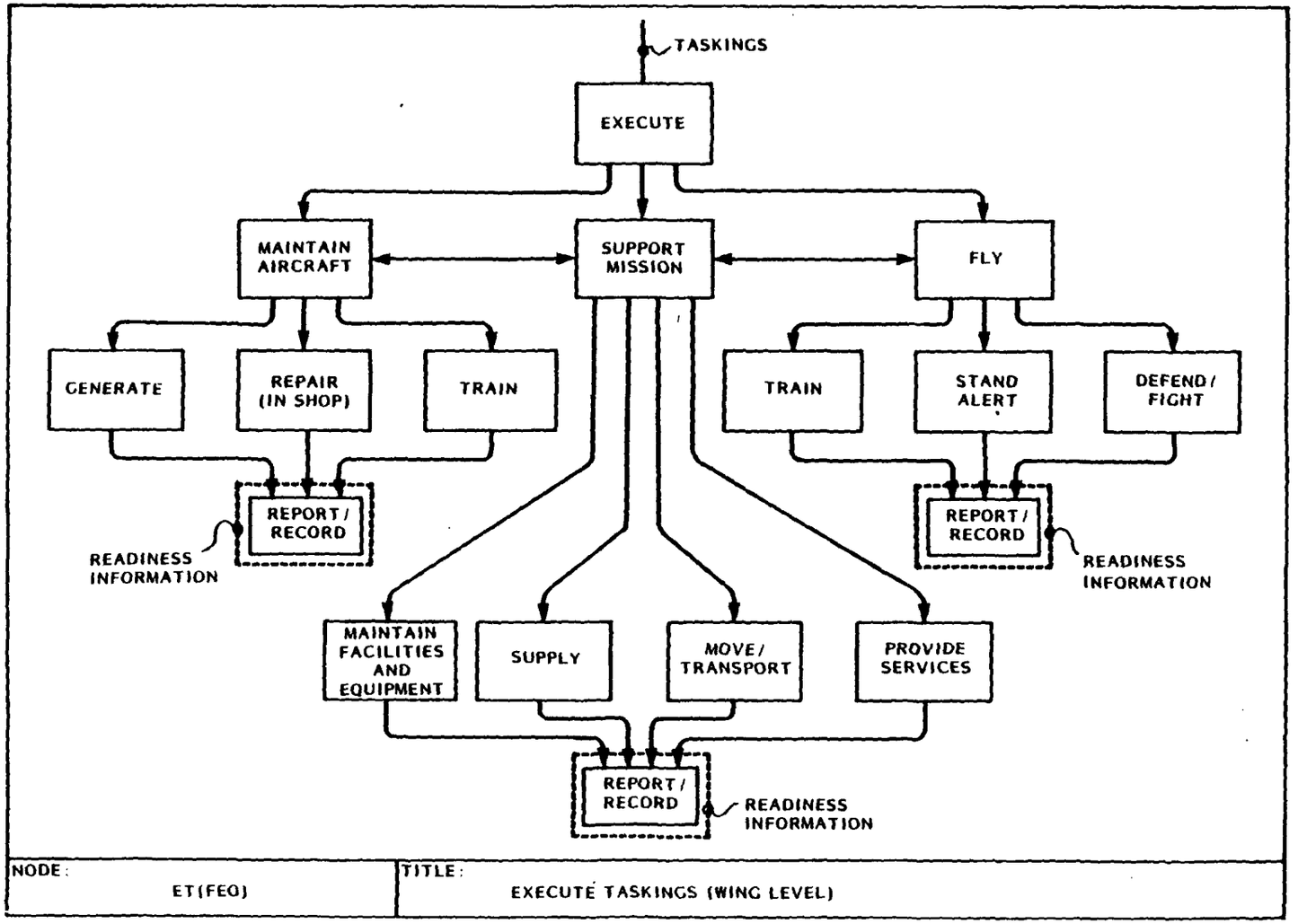
ET (FEO) Execute Taskings (Wing)

This context schematic shows three major areas of Wing activity and their continuous required reporting functions. Completions, problems, and status information pass to and from these areas. These functions are managed through the activity shown in Manage Execution diagrams.

This view of execute tasking, however, is strictly execute, that is, perform the task. Activities producing readiness data at the source are shown. They are included to portray Wing operations, maintenance, and support. The resources that do the work and the people who report accomplishments and status are described to include source events for producing readiness information. The more detailed the information, the less it resembles readiness information. What makes readiness tangible is structuring the resource activity and information according to tasking to produce a product or output that can be counted or quantified. Moreover, the yield of the activity, sorties flown or aircraft generated, should be compatible to the quantified statement of the tasking to be accomplished.

Describing execution at Wing level shows how a Wing and its squadrons work as a system to produce sorties, either as sortie type and hours flown or as aircraft generated. When major events of generating aircraft to meet the maintenance sortie goal (for one mission, for one week, over two weeks, up to a year) are known, the information necessary to make decisions to accomplish that goal can be defined. Out of that information, the precise information needed for readiness management and measurement can be derived.

The structure shown closely resembles the tripartite organization at Wing. Emphasis is placed on Operations, Maintenance, and Support, that includes Combat Support Group, Base Operations, and Resource Management.


TASKINGS
EXECUTE
MAINTAIN AIRCRAFT
SUPPORT MISSION
FLY
GENERATE
REPAIR (IN SHOP)
TRAIN
TRAIN
STAND ALERT
DEFEND/ FIGHT
REPORT/ RECORD
READINESS INFORMATION
REPORT/ RECORD
READINESS INFORMATION
MAINTAIN FACILITIES AND EQUIPMENT
SUPPLY
MOVE/ TRANSPORT
PROVIDE SERVICES
REPORT/ RECORD
READINESS INFORMATION
NODE:
ET(FEQ)
TITLE:
EXECUTE TASKINGS (WING LEVEL)

ET A-1 Execute Taskings, Process Overview (Wing)

On the performing or operating side of execute taskings, there are given translated taskings yearly; at Wing the sorties and flying hours are specified down to three week intervals, ending in a daily flying schedule, frag, or alert requirement.

Under each box are suggested conditions or situations in which the functions are performed.

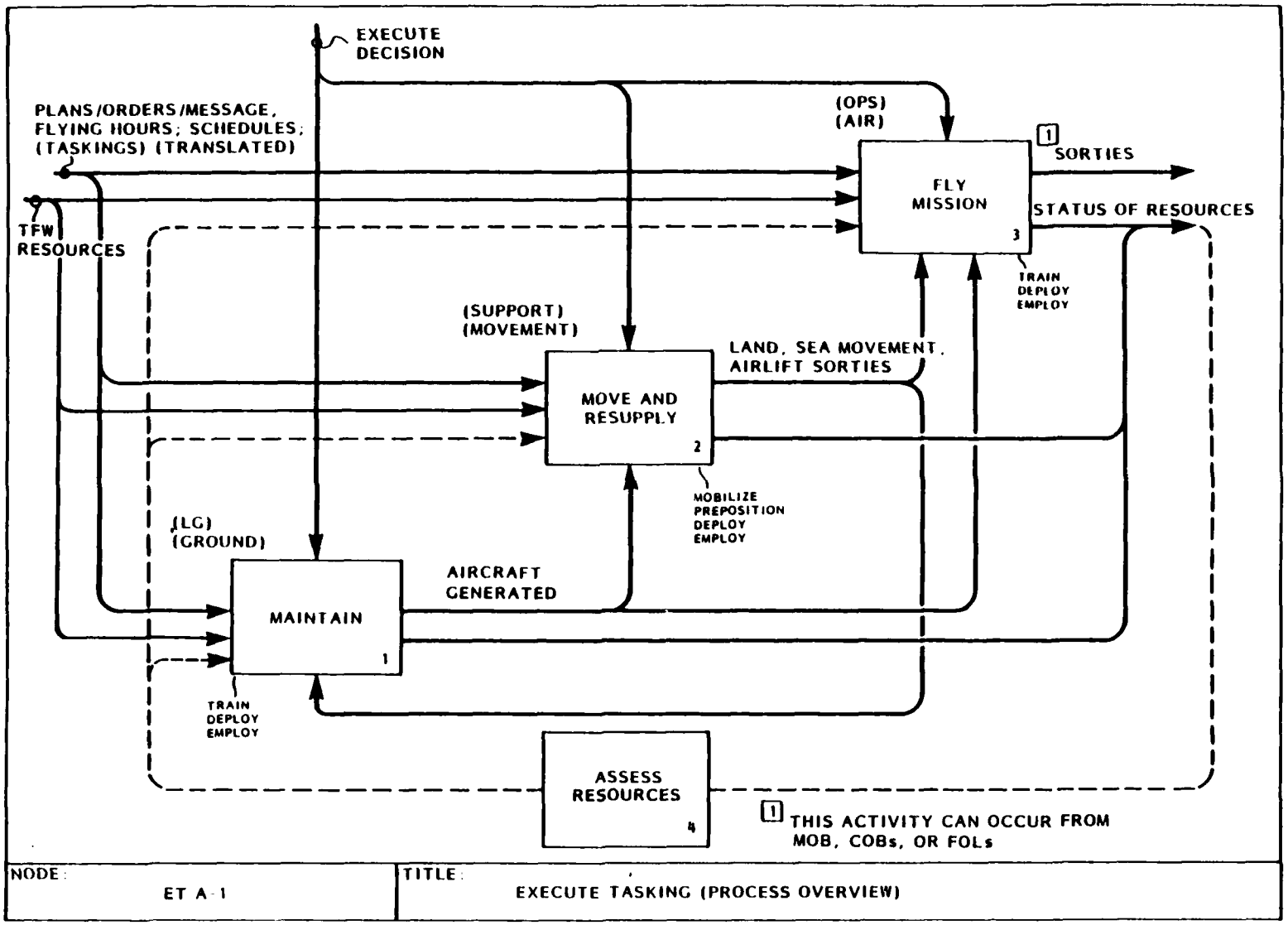
Whatever the situation or the time in which execution is to occur, maintenance must generate aircraft, movement and supply must move and provide support resources, and tactical sorties of some type will be flown. Furthermore, whether the situation is combat or combat training, resources will be affected or consumed.

Information conveying mission or schedule completions, expended items, consumed items, and problems or shortfalls will be reported, filed, or transmitted at some command level. The process of assessing how well trained maintenance and operations crews are, how long the sorties can be generated, or how many bombs or spares are left and needed will continue. Certain areas, items, and conditions require more frequent assessment and very specific information to know whether the daily flying schedule can be completed or the mission tasking performed.

Other more infrequently assessed items and areas, such as those producing weekly or monthly monitoring information, must also be accounted for and their condition described.

In portraying the Squadron/Wing activity in the modules that follow, emphasis is placed on those activities and resources most frequently assessed or that provide input to assessment.

The three wing views - Maintenance, Operations, and Support are presented. Note that support encompasses not only moving resources for resupply but also takes in the base and squadron facilities and services. Here, support is used in a system flow context with the tasking in progress. There is a feedback arrow from support to maintenance indicating that part of support is the supply function, a subsystem itself.



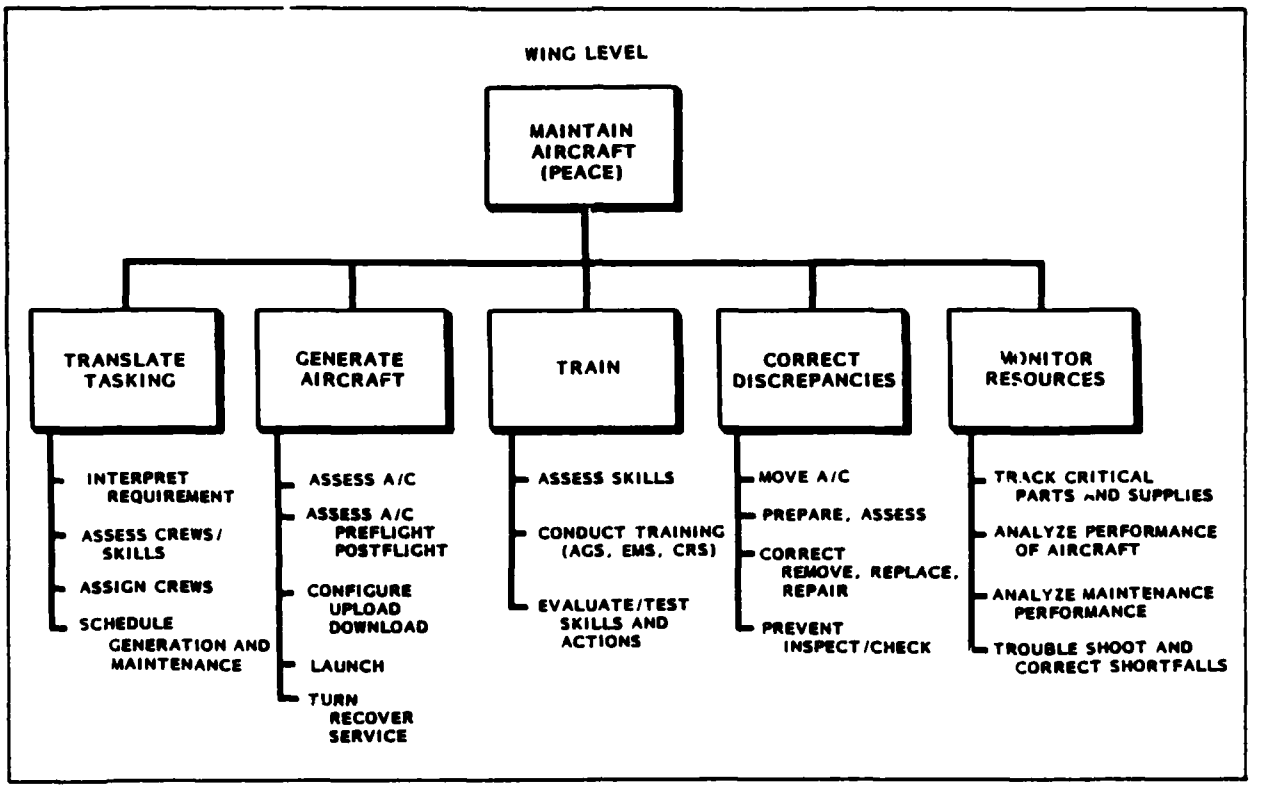
NODE:	TITLE:
ET A-1	EXECUTE TASKING (PROCESS OVERVIEW)

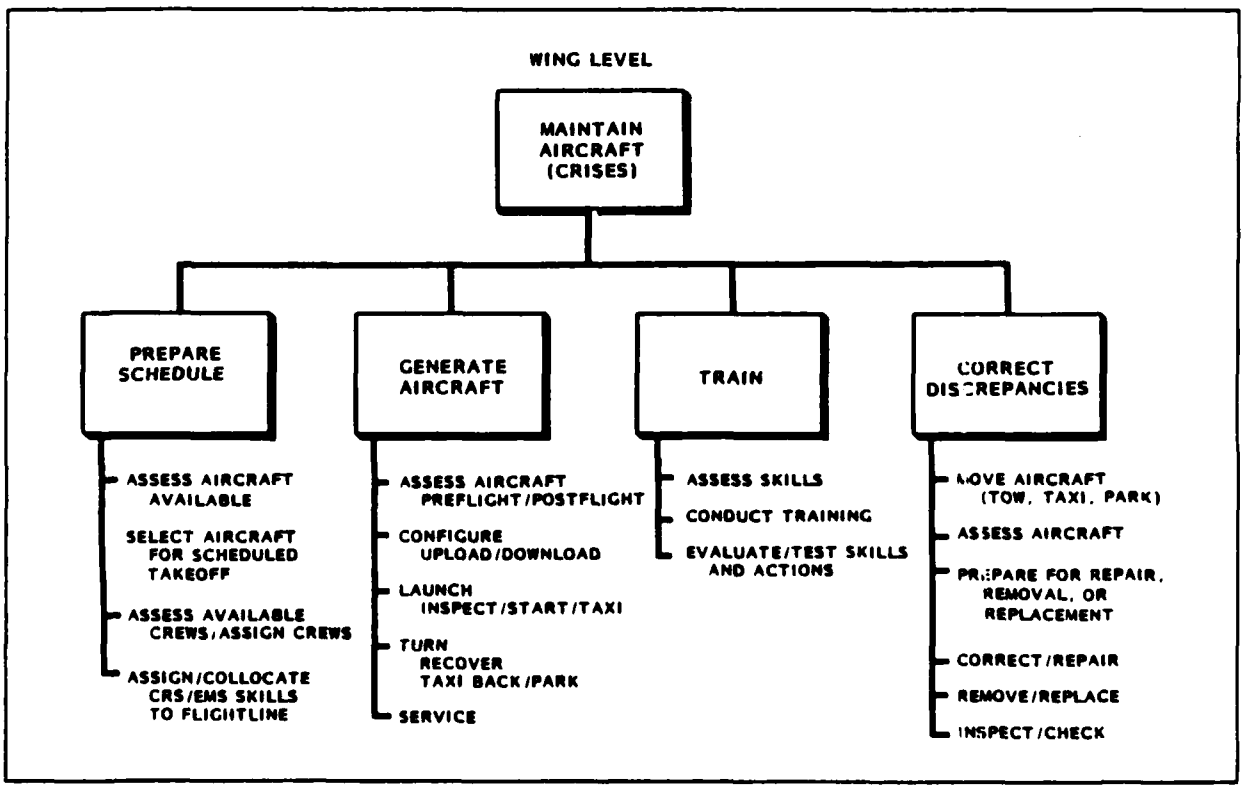
WMA AO (FEO) Maintain Aircraft, Overview (Wing)

The maintenance modules are shown in a work breakdown structure for peace and crises. The subfunctions shown are related, but imply no sequence or precedence. Generation refers to functions carried out by the Aircraft Generation Squadron on the flightline or in TABVEES (shelters). In addition, the weapons systems branch is included. Repair in shop (correct discrepancies) includes preventive and corrective maintenance, such as periodic inspections, scheduled maintenance, and in general, selective maintenance. This heavy maintenance also includes TCTOs, major repairs, and preventive maintenance of aircraft components, both propulsion and avionics. If there is extensive damage or malfunction to prevent generation or regeneration, it would be included under repair in shop. The ERS and CRS perform this type of maintenance.

Training includes both OJT and formal training programs necessary to bring specialists to the required skill levels needed for a particular aircraft. Of special interest is the breadth and depth required of certain skills levels, such as crew chiefs and supervisors at senior levels. The continual proficiency checks and tests are a vital part of maintenance tasking. Essential to training are FTDs and aircraft preparation, both in scheduling and reserving equipment, to allow specialists to be trained and evaluated.

Administrative tasks are also required of maintenance. Daily, monthly, and yearly documentation must be prepared and filed or transmitted locally and to higher management. These areas include Job Control, flightline, MA and staff, and liaison to supply. Readiness information is constantly conveyed on all operational aircraft, non-flyable aircraft, the disposition of crews and weapons loaders, essential equipment and vehicles, and especially parts and spares during a surge mode or intensive sortie generation.


WING LEVEL
MAINTAIN AIRCRAFT (PEACE)
TRANSLATE TASKING
GENERATE AIRCRAFT
TRAIN
CORRECT DISCREPANCIES
MONITOR RESOURCES
INTERPRET REQUIREMENT
ASSESS CREWS/ SKILLS
ASSIGN CREWS
SCHEDULE GENERATION AND MAINTENANCE
ASSESS A/C
ASSESS A/C PREFLIGHT POSTFLIGHT
CONFIGURE UPLOAD DOWNLOAD
LAUNCH
TURN RECOVER SERVICE
ASSESS SKILLS
CONDUCT TRAINING (AGS, EMS, CRS)
EVALUATE/TEST SKILLS AND ACTIONS
MOVE A/C
PREPARE, ASSESS
CORRECT REMOVE, REPLACE, REPAIR
PREVENT INSPECT/CHECK
TRACK CRITICAL PARTS AND SUPPLIES
ANALYZE PERFORMANCE OF AIRCRAFT
ANALYZE MAINTENANCE PERFORMANCE
TROUBLE SHOOT AND CORRECT SHORTFALLS


WING LEVEL
MAINTAIN AIRCRAFT (CRISES)
PREPARE SCHEDULE
GENERATE AIRCRAFT
TRAIN
CORRECT DISCREPANCIES
ASSESS AIRCRAFT AVAILABLE
SELECT AIRCRAFT FOR SCHEDULED TAKEOFF
ASSESS AVAILABLE CREWS/ASSIGN CREWS
ASSIGN/COLLOCATE CRS/EMS SKILLS TO FLIGHTLINE
ASSESS AIRCRAFT PREFLIGHT/POSTFLIGHT
CONFIGURE UPLOAD/DOWNLOAD
LAUNCH INSPECT/START/TAXI
TURN RECOVER TAXI BACK/PARK
SERVICE
ASSESS SKILLS
CONDUCT TRAINING
EVALUATE/TEST SKILLS AND ACTIONS
MOVE AIRCRAFT (TOW, TAXI, PARK)
ASSESS AIRCRAFT
PREPARE FOR REPAIR, REMOVAL, OR REPLACEMENT
CORRECT/REPAIR
REMOVE/REPLACE
INSPECT/CHECK

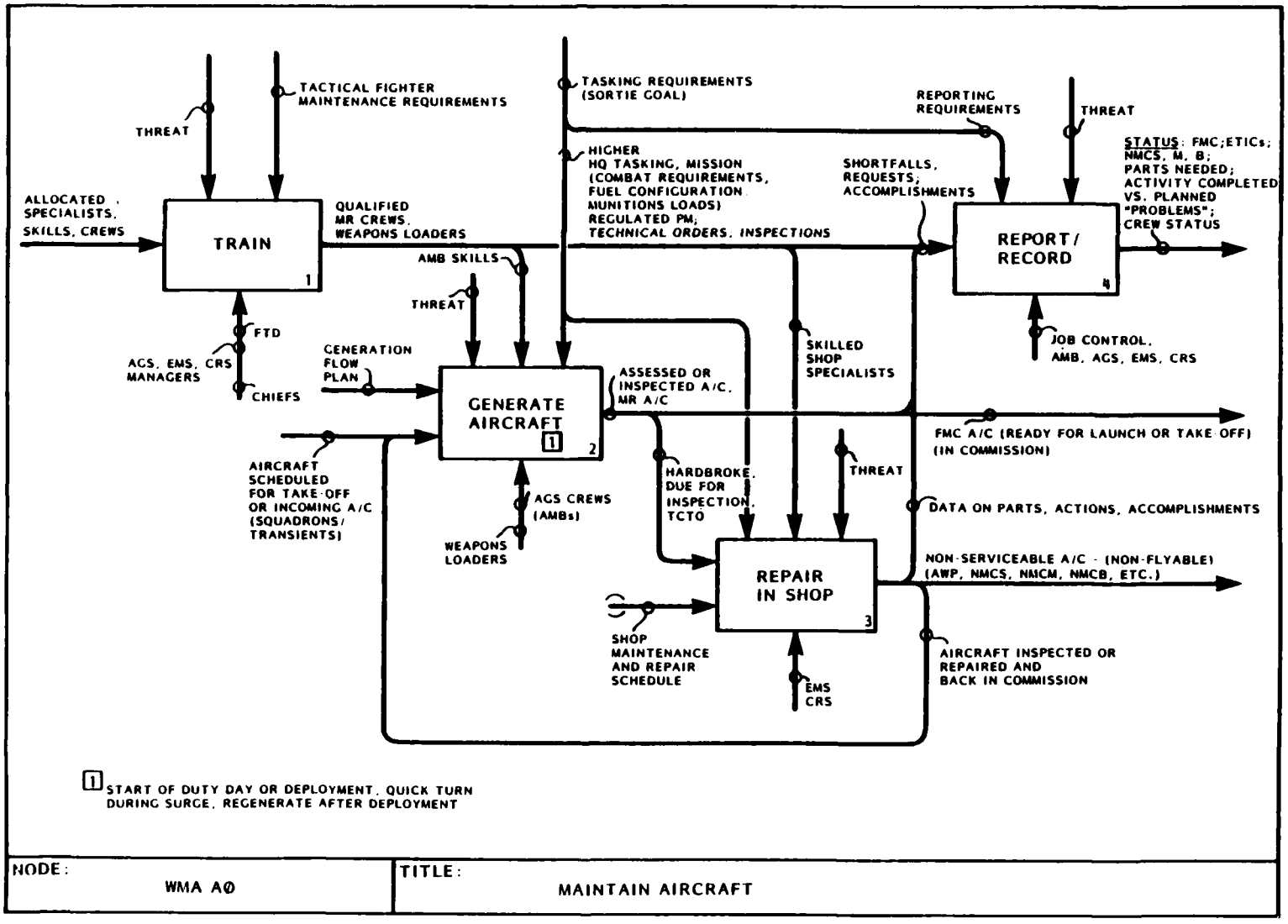
WMA AO Maintain Aircraft (Wing)

The maintenance areas and main functions are pictured here as processes forming a system. The main path of activity goes from Box 2 to Box 3 and back to Box 2. To go out of the path, the output of Box 3 goes to Box 4, conveying information to supply and status to management at Wing and to higher Headquarters.

Aircraft generation is shown as a straightline of aircraft into and out of Box 2. Controlling the generation are trained and available crews without which the generation and repair functions are not possible.

Tasking to the functions is the daily flying schedule, training requirements through local and deployed exercises, and combat requirements.

Notice that threat is shown controlling each box. Given a situation in which battle damage may occur to facilities on the base, Maintenance will proceed autonomously to recover aircraft and generate as many sorties as possible (Box 2). The intensity of the threat and the extent of damage will determine which functions can continue to be performed. The communication of critical information must continue as effectively as is possible (Box 4). This function provides the link to activity, performance, or events providing data sources. The timing requirement for readiness measurement data is immediate at flightline and Job Control with daily aggregates at squadron. Individual maintenance crews, weapons loaders, and aircraft are monitored and reported real time.



NODE:	TITLE:
WMA AØ	MAINTAIN AIRCRAFT

WM A2 Generate Aircraft (Wing)

This diagram is a functional representation of AGS and Weapons Branch activity and information. The emphasis is on activity that must be performed on an aircraft to complete the daily flying schedule or to respond to some level of crises. The structure is general purpose and outlines a process that works for most aircraft generation.

Activities are concurrent and have no specified sequence. All or one may be active for the squadron or flight aircraft to be generated. However, if just one aircraft is considered, Boxes 1-4 may all be active, and when completed, Box 5 can occur. The integrated combat turn allows Boxes 1-4 to occur in parallel on one aircraft, done by teams in a turn area simultaneously, using check lists to guide crew chiefs and specialists.

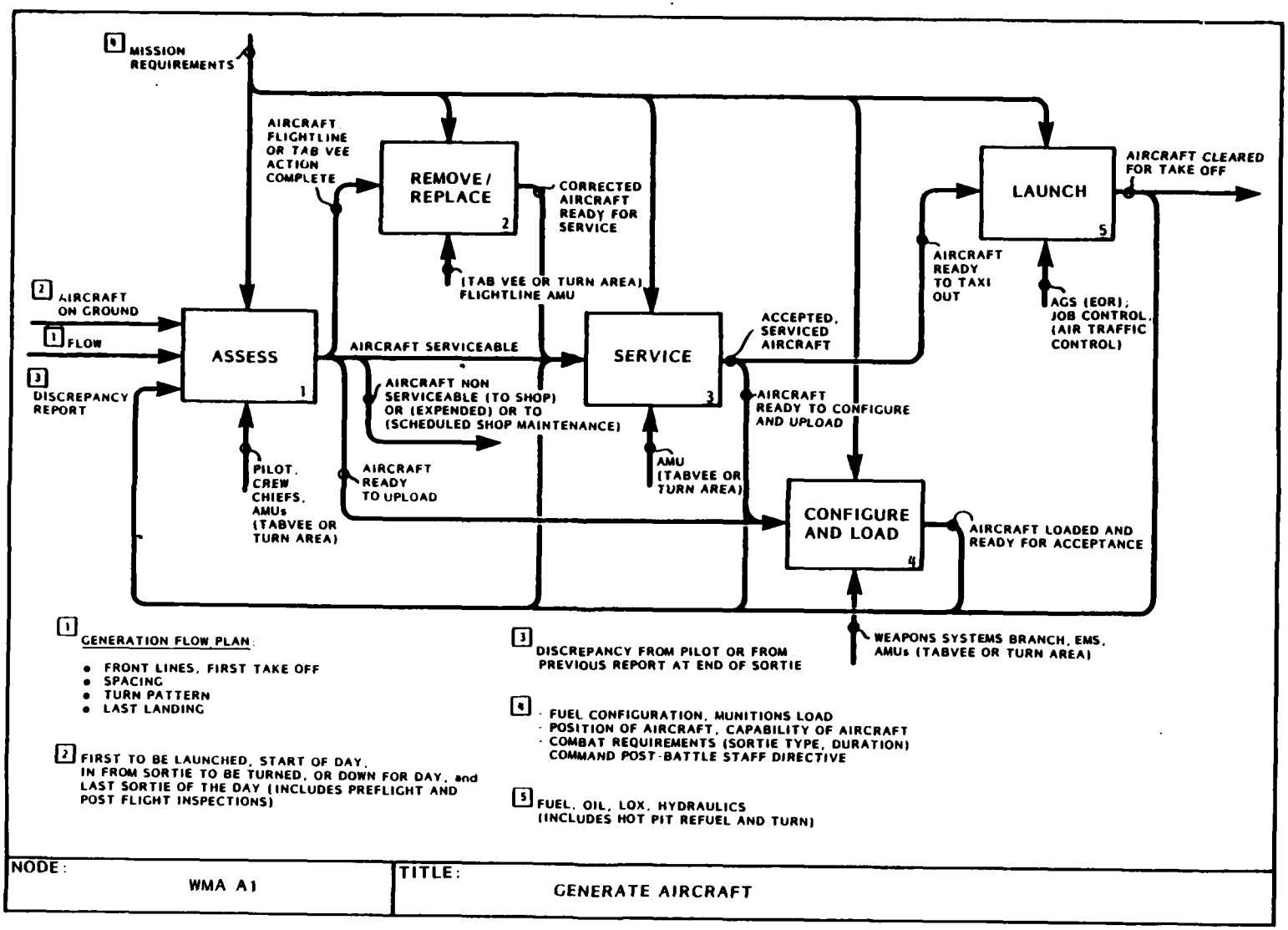
Box 1 is the most active function. Before, during, and after every maintenance action, an inspection or assessment of the aircraft must be done. Boxes 2, 3, 4, or 5 require that aircraft and work are checked before proceeding further.

Two main paths through this diagram are first Boxes 1, 3, and 5 with iterations on Box 1. The second path is through Boxes 1, 3, 4, and 5. If a discrepancy occurs (reported by either the pilot just before landing or found by crew chiefs) and warrants a flightline correction or minor repair, that happens in Box 2. Emphasis on rapid remove, replace, and minor repair on the flightline with heavy repair in backshops is expressed in limiting the function to remove and replace. Minor flightline repair is implied in Box 2.

This process also allows for daily generation preparing for the daily flying schedule. As aircraft land from the last sortie, or post flight, tanks must be refueled, and the aircraft serviced. Generation actually starts on the aircraft after the last sortie of the day. For the next preflight sortie day, aircraft must be inspected, critical discrepancies corrected, and serviced. If more serious discrepancies occurred from the sortie day, they would be cleared during the iterim duty shift between the last sortie down and the current preflight generation. After (Box 3), the aircraft is checked and fedback to Box 1 before it proceeds to be uploaded. After uploading (Box 4), it is checked (Box 1) and started, or cocked, (Box 3), checked (Box 1), and accepted by the pilot (Box 3) for taxi out to launch (Box 5) and take off, (discussed under Operations View).

Launch (Box 5) from the maintenance standpoint refers to end-of-runway checks for aircraft system leakage or discrepancies from the time an aircraft taxis out until arriving at the runway to take off. Air traffic control is out of scope (noted by parenthesis). Job control is kept informed of end-of-runway status at this time close to take-off. If a discrepancy warrants, the correction may be done by the team who found it, or the aircraft may have to taxi back (feedback to Box 1) and go through assessment (Box 1) and correction from Boxes 2, 3, or 4, be accepted at Box 3 and proceed for launch.

If any assessment during any part of generation or after landing results in a decision that the aircraft cannot be recovered and turned, it will be taken out of the schedule as malfunctioning or not flyable. It then goes to shops for EMS or CRS repair action (Box 1 optional output). If during combat or from an accident, the damage is non-repairable, the aircraft is salvaged for usable parts or cannibalization after thorough inspection and assessment (Box 1, optional output).



NODE:	TITLE:
WMA A1	GENERATE AIRCRAFT

WMA A2 Repair in Shop (Wing)

Shop maintenance requires that the component or aircraft be moved from the flightline (Box 1), prepared for inspection and assessed (Box 2), prepared for correction (Box 2), inspected again (Box 2), and either corrected by repair (Box 3), or undergo preventive maintenance (Box 4).

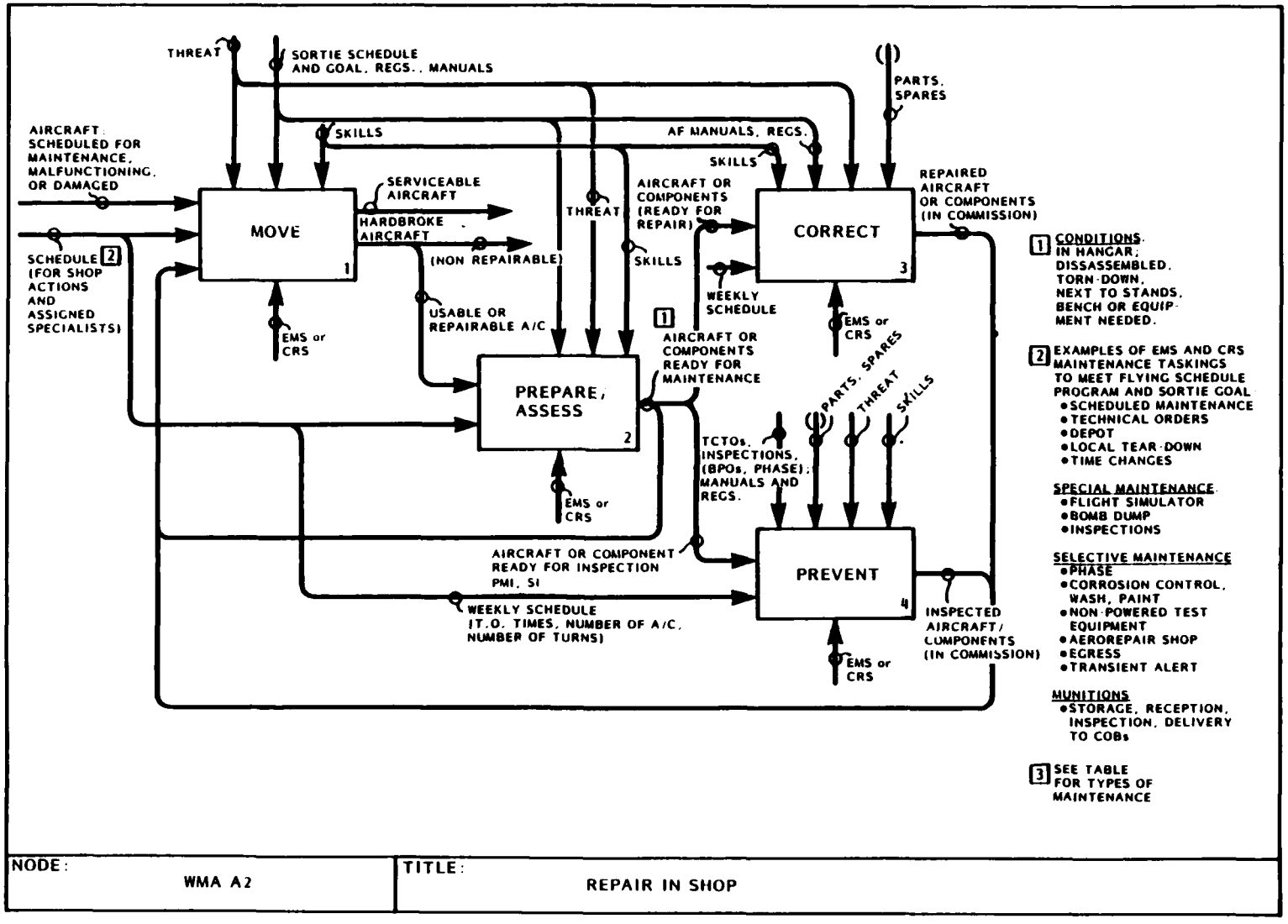
After an aircraft is repaired in shop and in commission, it is towed or moved (Box 1) to the flightline TABVEE, and becomes serviceable for generation.

Aircraft too severely damaged or worn for repair are assessed expended or non-repairable (Box 2, optional output). Permanently out of commission aircraft with usable components go to Box 2, where they may be used in Boxes 3 or 4 for parts, or components, or subsystems.

Maintenance shops, such as PMEL, and production control are assumed part of Boxes 3 and 4.

EMS and CRS work toward a sortie goal. They receive a weekly schedule of take off times, number of aircraft, and number of turns. The most difficult decision to reach between shop maintenance and AGS is what aircraft are to be scheduled for generation and what aircraft will go to shops for scheduled preventive maintenance and repairs. The Maintenance objective is to keep the maximum number of aircraft generated and flying to meet monthly and yearly sortie goals.

What is critical to all squadrons are personnel and qualified specialists. Training and qualifications needed to maintain today's fighter aircraft greatly concern Wing Management. Factors, such as break rates and losses, aircraft failures, and TDY requirements influence the daily schedule. Maintenance actions are time critical, and available qualified crews and specialists affect scheduling. The objective is to have personnel skills spread evenly over squadrons so that autonomy is possible in any one squadron. Training for augmentees is also a scheduling concern. Multi-level skills are required of a crew chief, for example, and time, service and grade are basic criteria for assignment to maintenance positions and areas within a squadron.



NODE:	TITLE:
WMA A2	REPAIR IN SHOP

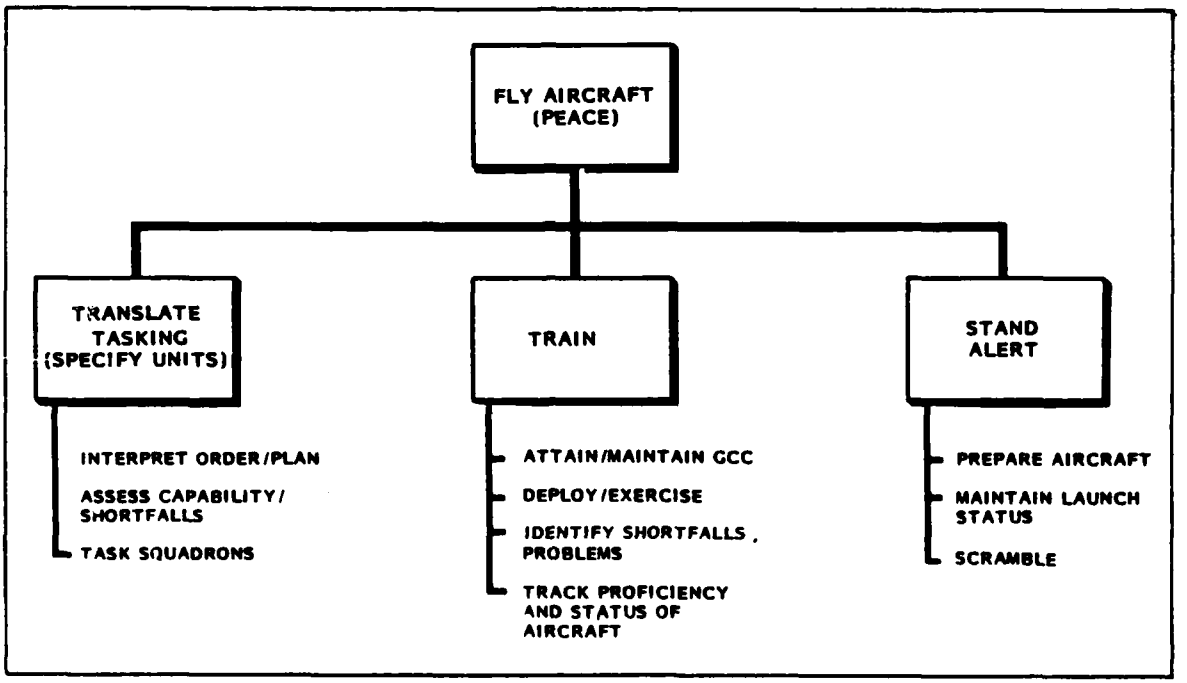
WO AO (FEO) Fly Aircraft (Wing)

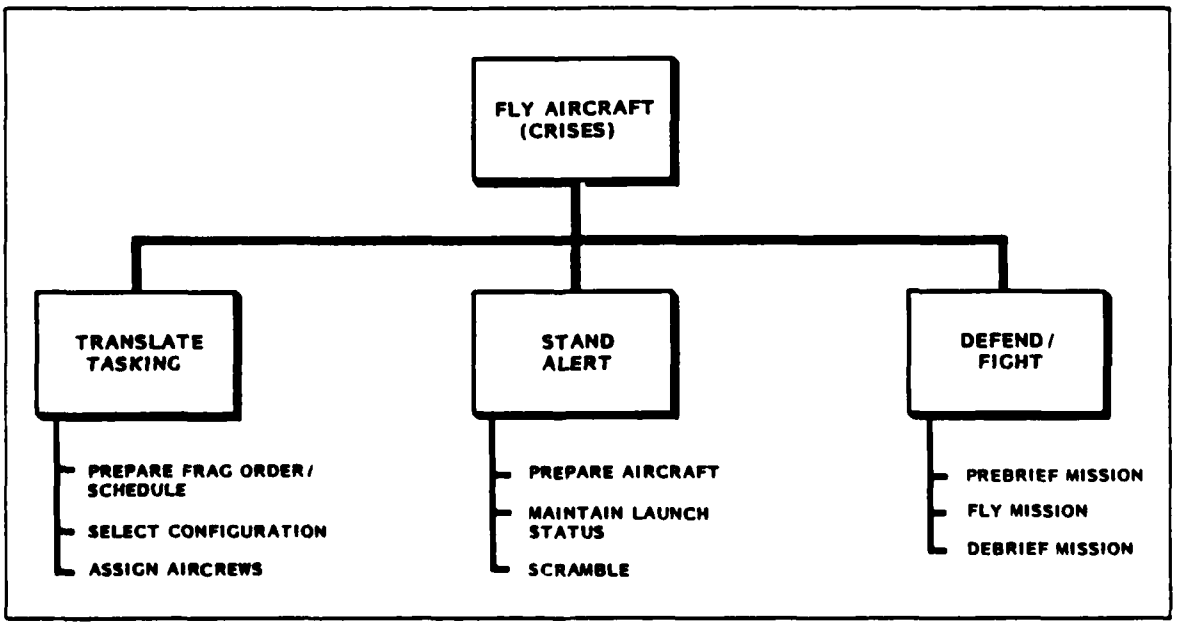
The main functions making up Operations (fly aircraft) spread across training, alert duty, and combat missions. These work breakdowns address the main types of sorties and the flying program of tactical fighter squadrons. Under training, deployment is listed, although it may seem broader in scope than training. Deployment activity, usually referred to as WTD and offstation duty, is listed with the other areas under training because as specific training, it affects readiness assessment and must be factored in as a great percentage of squadron activity. It also has an effect on sortie generation.

Stand alert refers to the activities necessary to prepare the aircraft and crews to respond in minutes.

Under defend and fight - the mission of tactical fighter aircraft and aircrews - are the main steps of flying a sortie from the Operations view. If a rapid response is necessary, such as the common perception of scramble, possibly preflight and inspect activities will speed up or be modified.

In daily training and activity, thorough documentation of the mission or sortie is done. For each pilot, records must be kept of training squares filled, sortie activity completed daily, and sorties scheduled to maintain proficiency. Aircrew location and availability status are monitored. Squadrons report to the DO and CC daily, weekly, and monthly, and, in turn, this information is briefed to MAJCOM Headquarters.


FLY AIRCRAFT (PEACE)
TRANSLATE TASKING (SPECIFY UNITS)
TRAIN
STAND ALERT
INTERPRET ORDER/PLAN
ASSESS CAPABILITY/ SHORTFALLS
TASK SQUADRONS
ATTAIN/MAINTAIN GCC
DEPLOY/EXERCISE
IDENTIFY SHORTFALLS, PROBLEMS
TRACK PROFICIENCY AND STATUS OF AIRCRAFT
PREPARE AIRCRAFT
MAINTAIN LAUNCH STATUS
SCRAMBLE

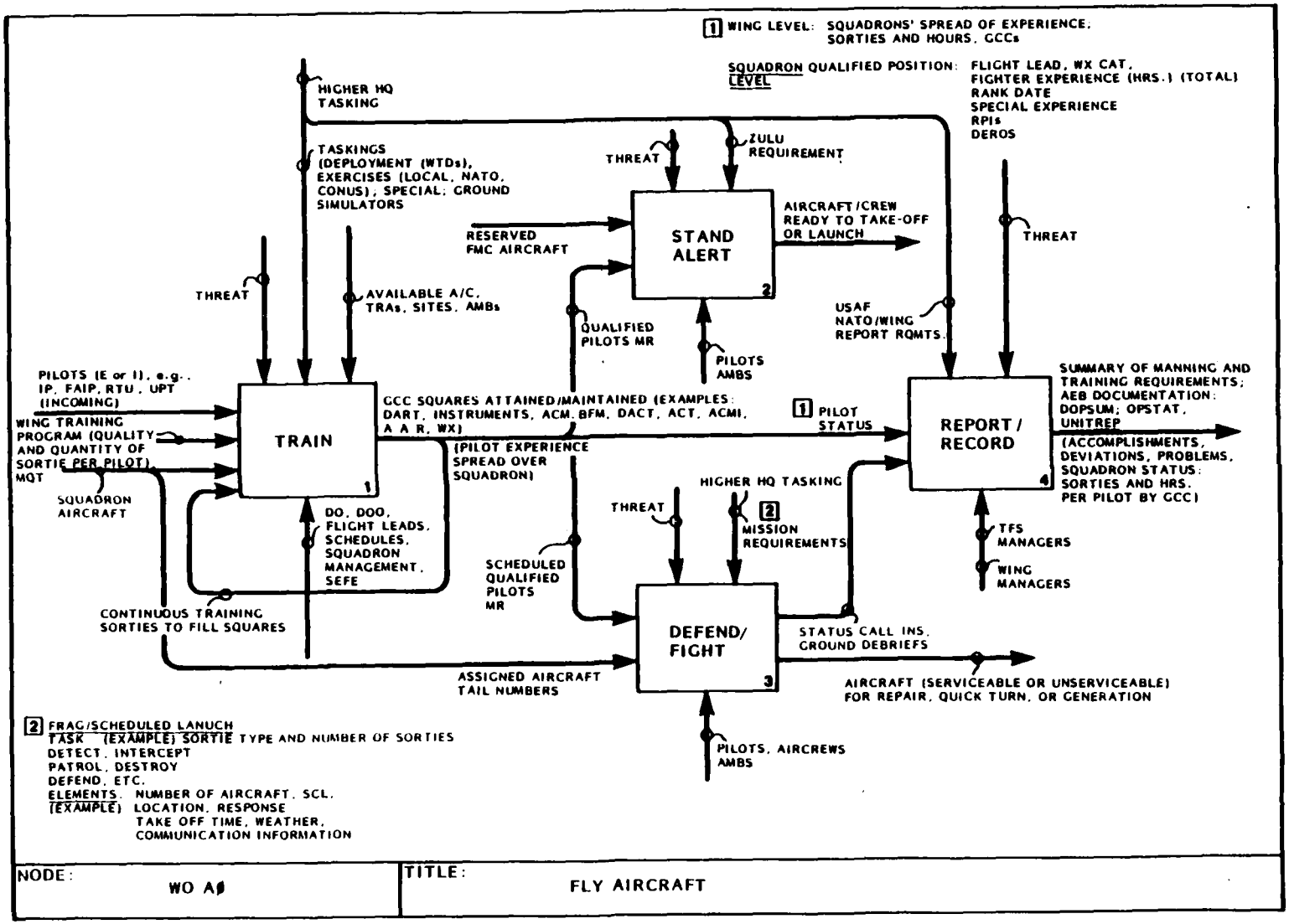

FLY AIRCRAFT (CRISES)
TRANSLATE TASKING
STAND ALERT
DEFEND/ FIGHT
PREPARE FRAG ORDER/ SCHEDULE
SELECT CONFIGURATION
ASSIGN AIRCREWS
PREPARE AIRCRAFT
MAINTAIN LAUNCH STATUS
SCRAMBLE
PREBRIEF MISSION
FLY MISSION
DEBRIEF MISSION

WO AO Fly Aircraft, Operations View (Wing)

The work breakdown is seen here as system functions in which work is done with resources. In Box 1, the Wing flying program is accomplished. Pilots arrive at the Wing, are assigned to squadrons, and proceed to come up to combat proficiency. Pilots entering the system have varying levels of previous experience and training. By the time they go through the Wing curriculum, they are MR to fly weather, instruments, and combat maneuvers required by their mission and the environment. The Wing Operations goal is to evenly distribute experience and flying time across the squadrons so that equal strength and proficiency can be achieved through quantity and quality of sorties flown. In combat conditions, squadrons need to be as well trained as possible to be autonomous. Notice that continual training goes on and alert duty is rotated. When alert tasking arrives, aircrews take off to fly their mission.

Because alert is special duty and involves a separate set of aircraft, distinct output is shown from Box 2. Boxes 1 and 3 continually produce sorties and result in an aircraft in some condition or status.

From Box 4, the recipient for information from squadrons, the kinds of reports and briefings required to communicate results are shown. These are needed locally and by higher Headquarters.


[1] WING LEVEL: SQUADRONS' SPREAD OF EXPERIENCE, SORTIES AND HOURS, GCCs
SQUADRON QUALIFIED POSITION: FLIGHT LEAD, WX CAT, FIGHTER EXPERIENCE (HRS.) (TOTAL) RANK DATE SPECIAL EXPERIENCE RPIs DEROS
LEVEL
HIGHER HQ TASKING
TASKINGS (DEPLOYMENT (WTDs), EXERCISES (LOCAL, NATO, CONUS), SPECIAL; GROUND SIMULATORS
THREAT
ZULU REQUIREMENT
STAND ALERT
2
AIRCRAFT/CREW READY TO TAKE-OFF OR LAUNCH
RESERVED FMC AIRCRAFT
THREAT
THREAT
AVAILABLE A/C, TRAs, SITES, AMBs
QUALIFIED PILOTS MR
PILOTS AMBS
USAF NATO/WING REPORT RQMTS.
PILOTS (E or I), e.g., IP, FAIP, RTU, UPT (INCOMING)
WING TRAINING PROGRAM (QUALITY AND QUANTITY OF SORTIE PER PILOT) MQT
SQUADRON AIRCRAFT
TRAIN
1
GCC SQUARES ATTAINED/MAINTAINED (EXAMPLES: DART, INSTRUMENTS, ACM, BFM, DACT, ACT, ACMI, A A R, WX)
[1] PILOT STATUS
REPORT / RECORD
4
SUMMARY OF MANNING AND TRAINING REQUIREMENTS; AEB DOCUMENTATION: DOPSUM; OPSTAT, UNITREP (ACCOMPLISHMENTS, DEVIATIONS, PROBLEMS, SQUADRON STATUS: SORTIES AND HRS. PER PILOT BY GCC)
(PILOT EXPERIENCE SPREAD OVER SQUADRON)
HIGHER HQ TASKING
THREAT
[2] MISSION REQUIREMENTS
TFS MANAGERS
WING MANAGERS
DO, DOO, FLIGHT LEADS, SCHEDULES, SQUADRON MANAGEMENT, SEFE
SCHEDULED QUALIFIED PILOTS MR
CONTINUOUS TRAINING SORTIES TO FILL SQUARES
DEFEND/ FIGHT
3
STATUS CALL INS, GROUND DEBRIEFS
ASSIGNED AIRCRAFT TAIL NUMBERS
AIRCRAFT (SERVICEABLE OR UNSERVICEABLE) FOR REPAIR, QUICK TURN, OR GENERATION
PILOTS, AIRCREWS AMBS
[2] FRAG/SCHEDULED LANUCH
TASK (EXAMPLE) SORTIE TYPE AND NUMBER OF SORTIES
DETECT, INTERCEPT
PATROL, DESTROY
DEFEND, ETC.
ELEMENTS, NUMBER OF AIRCRAFT, SCL.
(EXAMPLE) LOCATION, RESPONSE
TAKE OFF TIME, WEATHER, COMMUNICATION INFORMATION
NODE: WO A0
TITLE: FLY AIRCRAFT

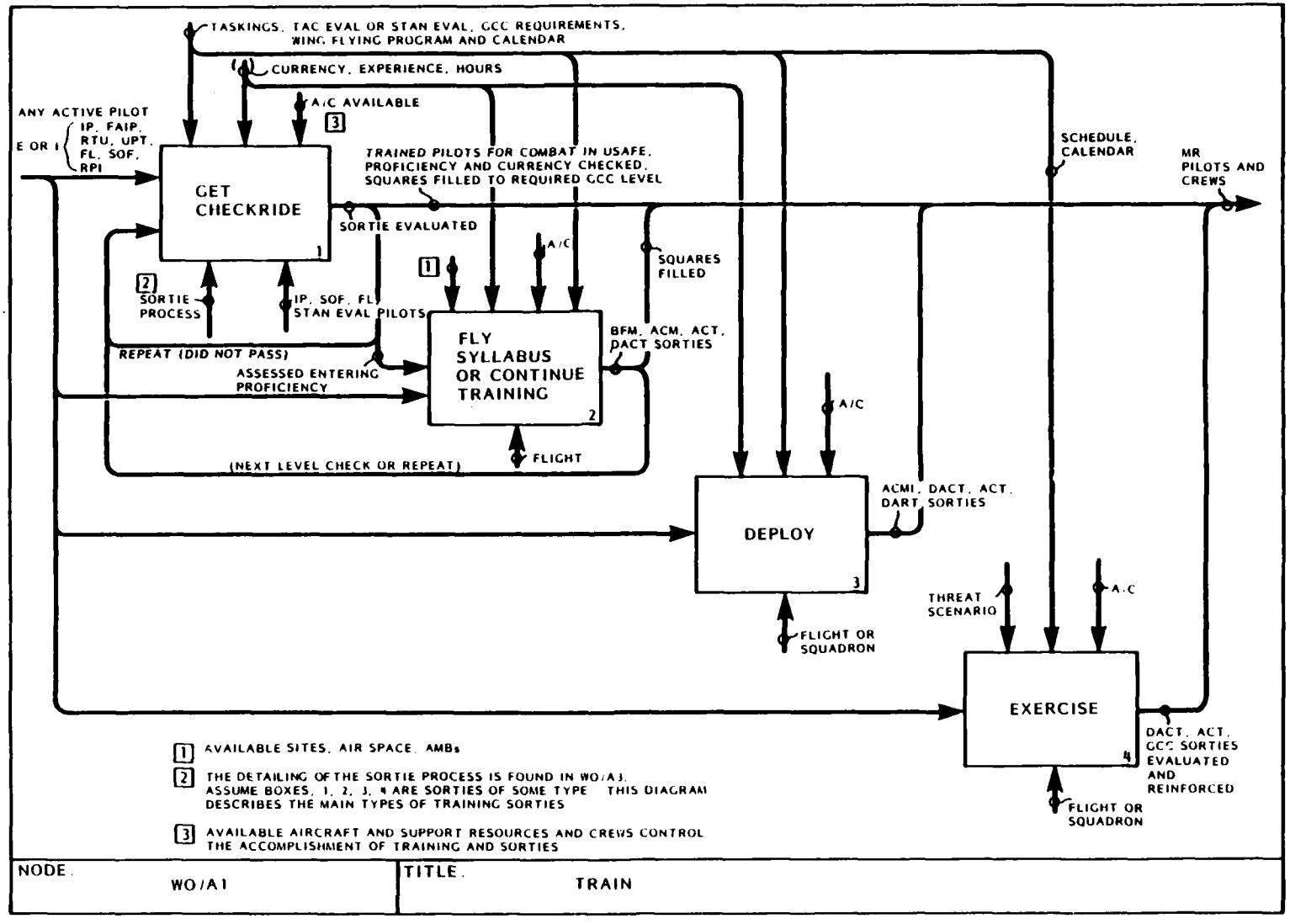
WO Al Train (Wing)

Whether a pilot is at combat level or newly assigned to a squadron, he must maintain proficiency and continue training for combat (Boxes 1, 2, 3, 4). The evaluation process iterates at Box 1, whether STAN EVAL pilots or IPs, while becoming proficient with fighter aircraft in the USAFE environment. Box 2 entails basic flight maneuvers, air combat maneuvers, required instrument flying, simulator time, and ground studies. It also includes formation maneuvers, weather, filing flight plan, basic out and back checks, and ascents. This graduates to the more difficult air refueling, night requirements, and combat maneuvers.

Air combat training is the objective of the program at the Wing, especially flight lead proficiency, a critical resource to the squadron.

Much time is spent off-station in training (Box 3). Tactical Leadership Program training, off-station deployments for ACMI, DACT, and DART; and any special exercises requiring deployment make up realistic situations and conditions to keep aircrews combat ready.

Information exchanged and reported can be found in Manage Execution, Readiness Information, Support Management, and Report/Record.


TASKINGS, TAC EVAL OR STAN EVAL, GCC REQUIREMENTS, WING FLYING PROGRAM AND CALENDAR
CURRENCY, EXPERIENCE, HOURS
A/C AVAILABLE
3
ANY ACTIVE PILOT
E OR I
IP, FAIP, RTU, UPT, FL, SOF, RPI
GET CHECKRIDE
1
TRAINED PILOTS FOR COMBAT IN USAFE, PROFICIENCY AND CURRENCY CHECKED, SQUARES FILLED TO REQUIRED GCC LEVEL
SCHEDULE, CALENDAR
MR PILOTS AND CREWS
SORTIE EVALUATED
A/C
SQUARES FILLED
2
SORTIE PROCESS
IP, SOF, FLY STAN EVAL PILOTS
1
REPEAT (DID NOT PASS)
ASSESSED ENTERING PROFICIENCY
FLY SYLLABUS OR CONTINUE TRAINING
2
BFM, ACM, ACT, DACT SORTIES
A/C
FLIGHT
(NEXT LEVEL CHECK OR REPEAT)
ACMI, DACT, ACT, DART, SORTIES
DEPLOY
3
THREAT SCENARIO
A/C
FLIGHT OR SQUADRON
EXERCISE
4
DACT, ACT, GCC SORTIES EVALUATED AND REINFORCED
FLIGHT OR SQUADRON
1 AVAILABLE SITES, AIR SPACE, AMBs
2 THE DETAILING OF THE SORTIE PROCESS IS FOUND IN WO/A3. ASSUME BOXES, 1, 2, 3, & 4 ARE SORTIES OF SOME TYPE. THIS DIAGRAM DESCRIBES THE MAIN TYPES OF TRAINING SORTIES
3 AVAILABLE AIRCRAFT AND SUPPORT RESOURCES AND CREWS CONTROL THE ACCOMPLISHMENT OF TRAINING AND SORTIES
NODE: WO/A1
TITLE: TRAIN

WO A3 Defend/Fight (Wing)

Activity starts as Box 1 where aircrews brief preflight or postflight. They go to the aircraft Box 2 (or Box 3) depending on the threat. Box 3 is included for situations where the inspection and acceptance process is expedited. After acceptance, the pilot taxis out (Box 4), goes to end of runway (Box 4), and, when cleared, takes off (Box 5). When airborne, the pilot proceeds with mission tactics (Box 6) and combat maneuvers.

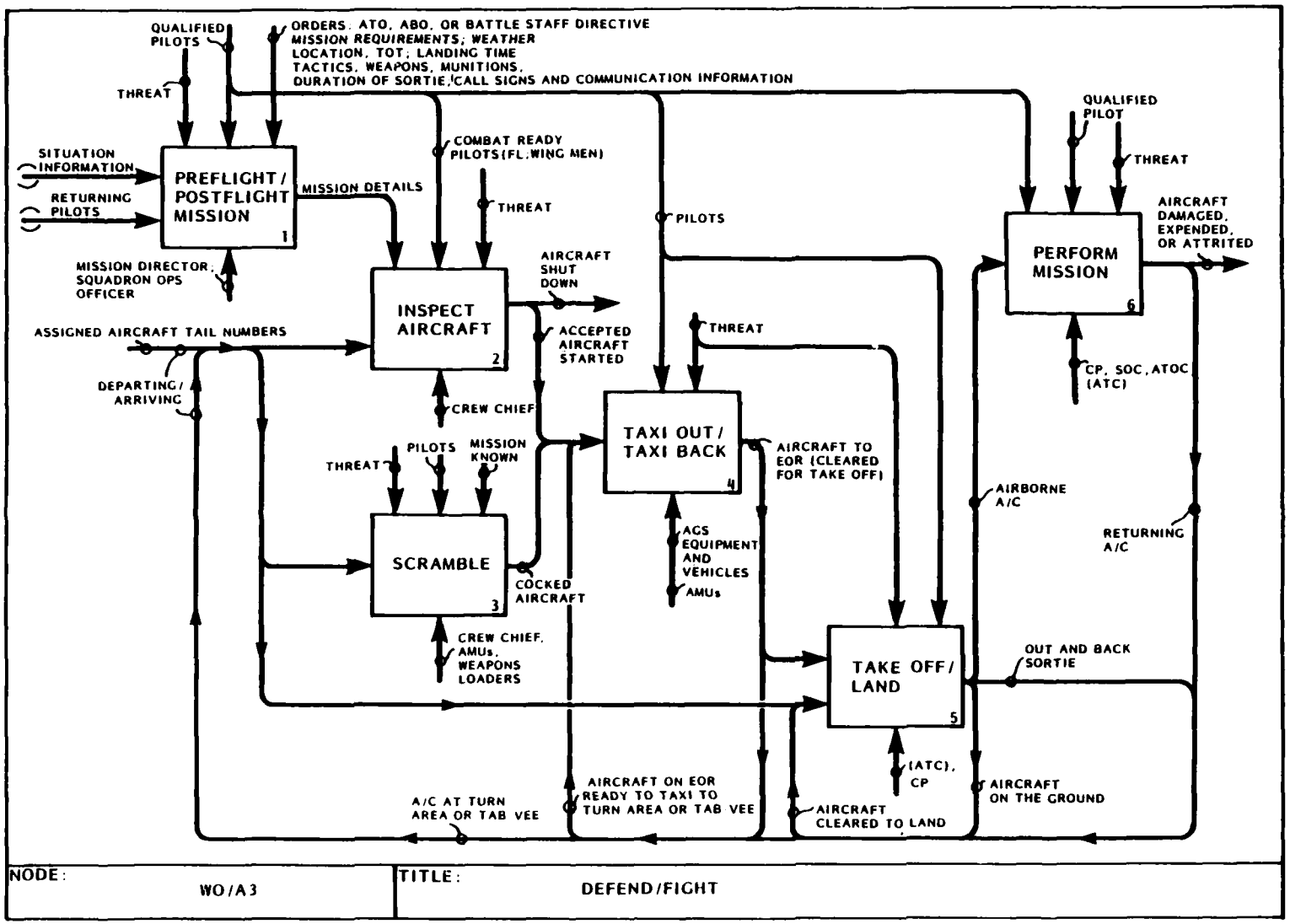
When the mission is completed, the aircraft returns (output from Box 6), lands (Box 5), taxis back (Box 4) to turn area or TABVEE (Box 2). The aircraft is then turned by maintenance (see Generate under Maintain Aircraft) or shut down, having completed the sortie(s) tasked.

The functions are arranged to facilitate understanding the decisions and information required at each box. In addition, at any one of these boxes, the aircraft could be stopped, or aborted from take-off, delayed, or lost by battle damage, malfunction, or accident.

This process describes both training and combat sorties. Whether tasking is known, briefed, scheduled, or given airborne, the sortie would require this process.

Notice that air traffic control is parenthesized. This command and control function is out of scope; however, the mission director is considered a prime source of information for pilot/squadron assignments and aircraft assigned.

Take-off and landing times, aircraft status, pilot status, weapons status, weather, and location of pilots and aircraft are parameters for readiness decisions. Discrepancies or malfunctions would also be included.

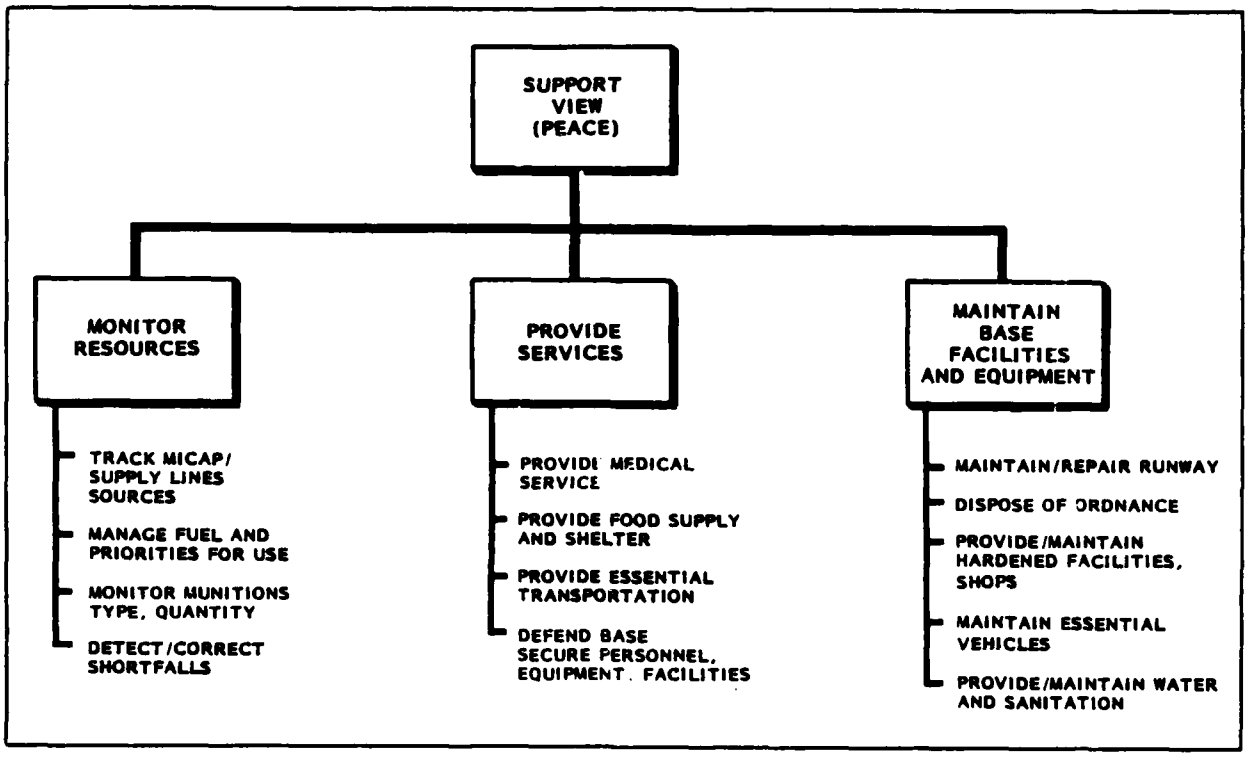


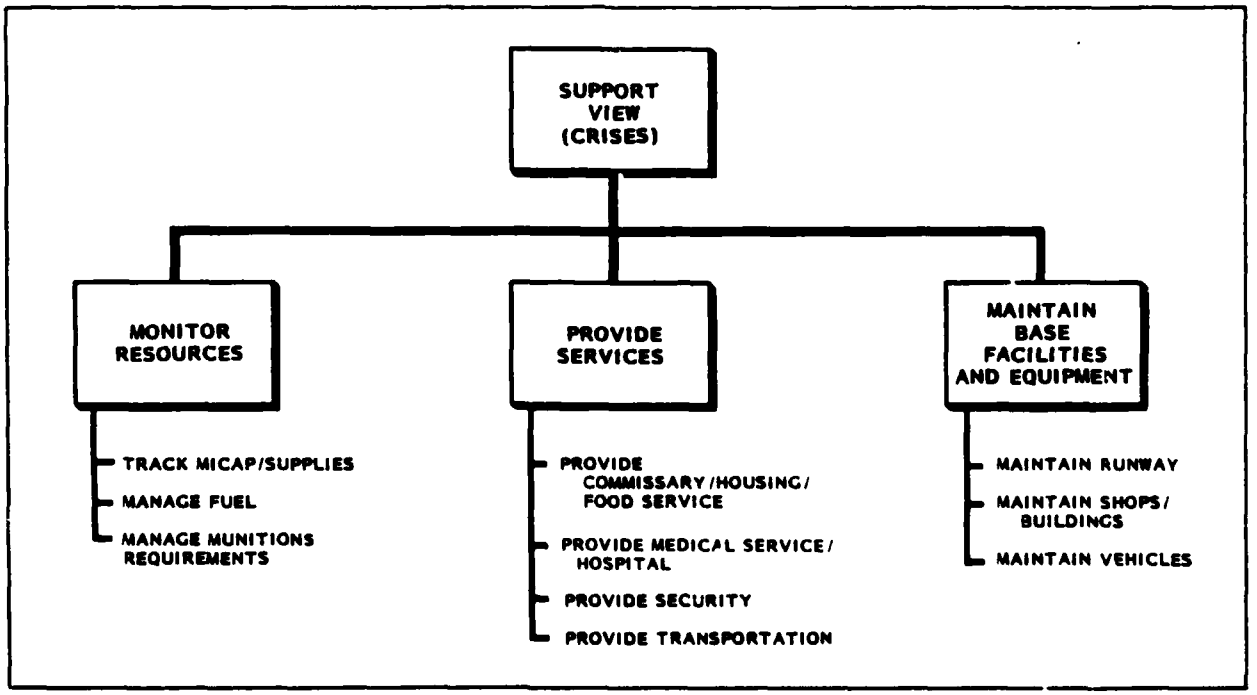
NODE:	TITLE:
WO/A3	DEFEND/FIGHT

WS AO (FEO) Support View (Wing)

This work breakdown structure shows the main areas providing support to the wing and flying squadrons. Some of these divisions most likely cross organizational boundaries for a functional area; however, the intent of this structure is to categorize support functionally and to identify the type of information and communication needed to assess readiness.

A major factor to be considered under support is priority: the resources most frequently needed and assessed, areas that report infrequently or by exception, and the information reported and excluded from readiness decisions.

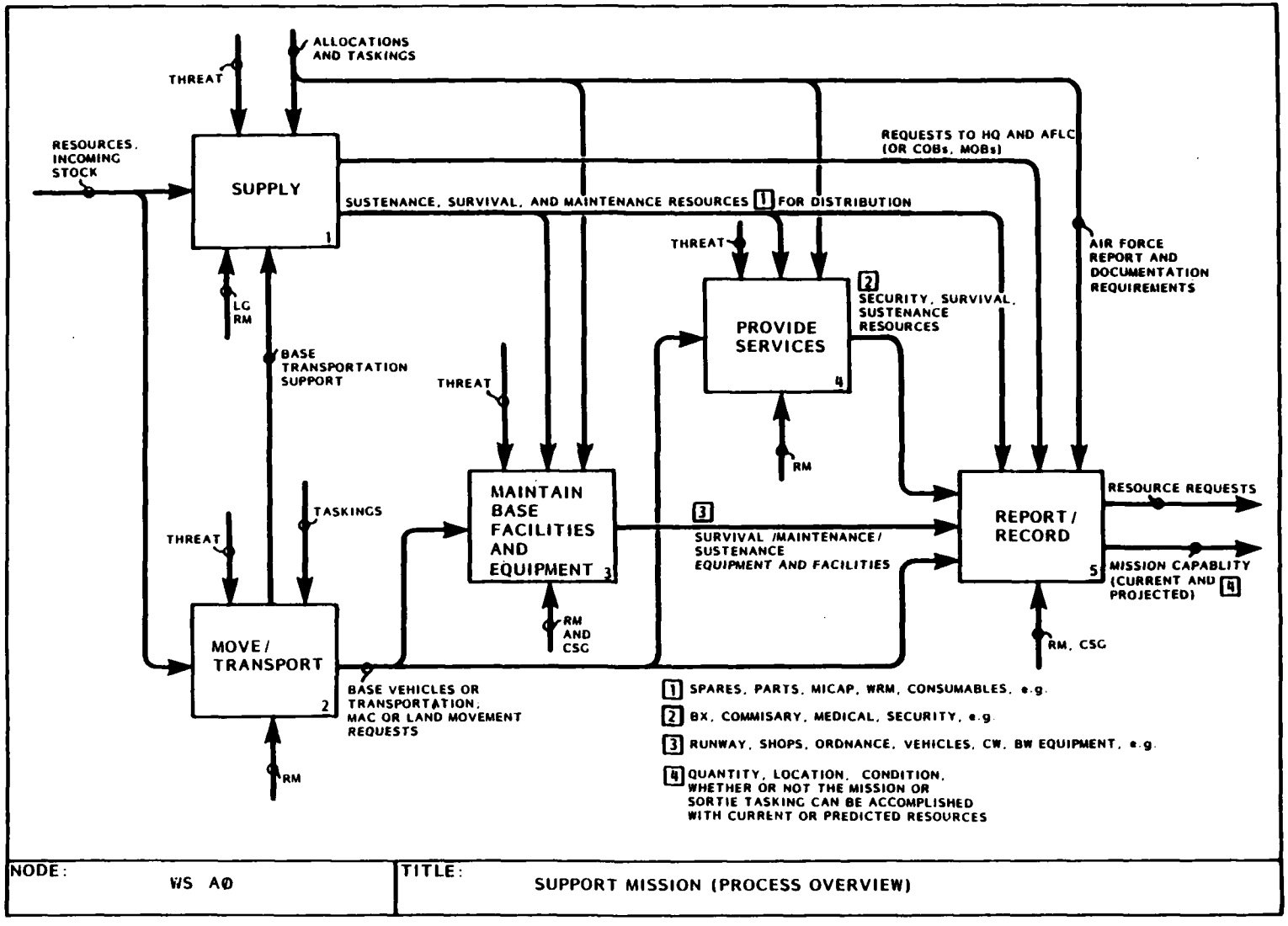

SUPPORT VIEW (PEACE)
MONITOR RESOURCES
PROVIDE SERVICES
MAINTAIN BASE FACILITIES AND EQUIPMENT
TRACK MICAP/ SUPPLY LINES SOURCES
MANAGE FUEL AND PRIORITIES FOR USE
MONITOR MUNITIONS TYPE, QUANTITY
DETECT/CORRECT SHORTFALLS
PROVIDE MEDICAL SERVICE
PROVIDE FOOD SUPPLY AND SHELTER
PROVIDE ESSENTIAL TRANSPORTATION
DEFEND BASE SECURE PERSONNEL, EQUIPMENT, FACILITIES
MAINTAIN/REPAIR RUNWAY
DISPOSE OF ORDNANCE
PROVIDE/MAINTAIN HARDENED FACILITIES, SHOPS
MAINTAIN ESSENTIAL VEHICLES
PROVIDE/MAINTAIN WATER AND SANITATION


SUPPORT VIEW (CRISES)
MONITOR RESOURCES
PROVIDE SERVICES
MAINTAIN BASE FACILITIES AND EQUIPMENT
TRACK MICAP/SUPPLIES
MANAGE FUEL
MANAGE MUNITIONS REQUIREMENTS
PROVIDE COMMISSARY/HOUSING/ FOOD SERVICE
PROVIDE MEDICAL SERVICE/ HOSPITAL
PROVIDE SECURITY
PROVIDE TRANSPORTATION
MAINTAIN RUNWAY
MAINTAIN SHOPS/ BUILDINGS
MAINTAIN VEHICLES

WS AO Support Mission

This picture of key areas of support shows that Boxes 1, 3, and 4 are all supported by Box 2. Notice that threat, allocations, and taskings control each function. Daily, there is a need to prioritize resources for each major activity shown. In supply (Box 1) readiness monitors trouble shoot MICAP items and keep records of drawdowns and frequently needed parts. Monitoring allows Wing and squadron managers to make decisions and projections.

Rapid runway repair teams, base facility and equipment maintenance, explosive ordnance detonation, damage repair, and survival equipment are vital to Wing survival (Box 3). These areas are monitored at a survival recovery center. As support to Boxes 1, 3, and 4, movement and transportation (Box 2) allow resources to get to storage, crews to get to flightlines, and vehicles to be operational for base needs. These functions form an underpinning system that allows a Wing to sustain activity.



NODE:	TITLE:
WS A0	SUPPORT MISSION (PROCESS OVERVIEW)

R (FEO) Support Management Overview (Readiness Information)
(HQ USAFE and TFW View)

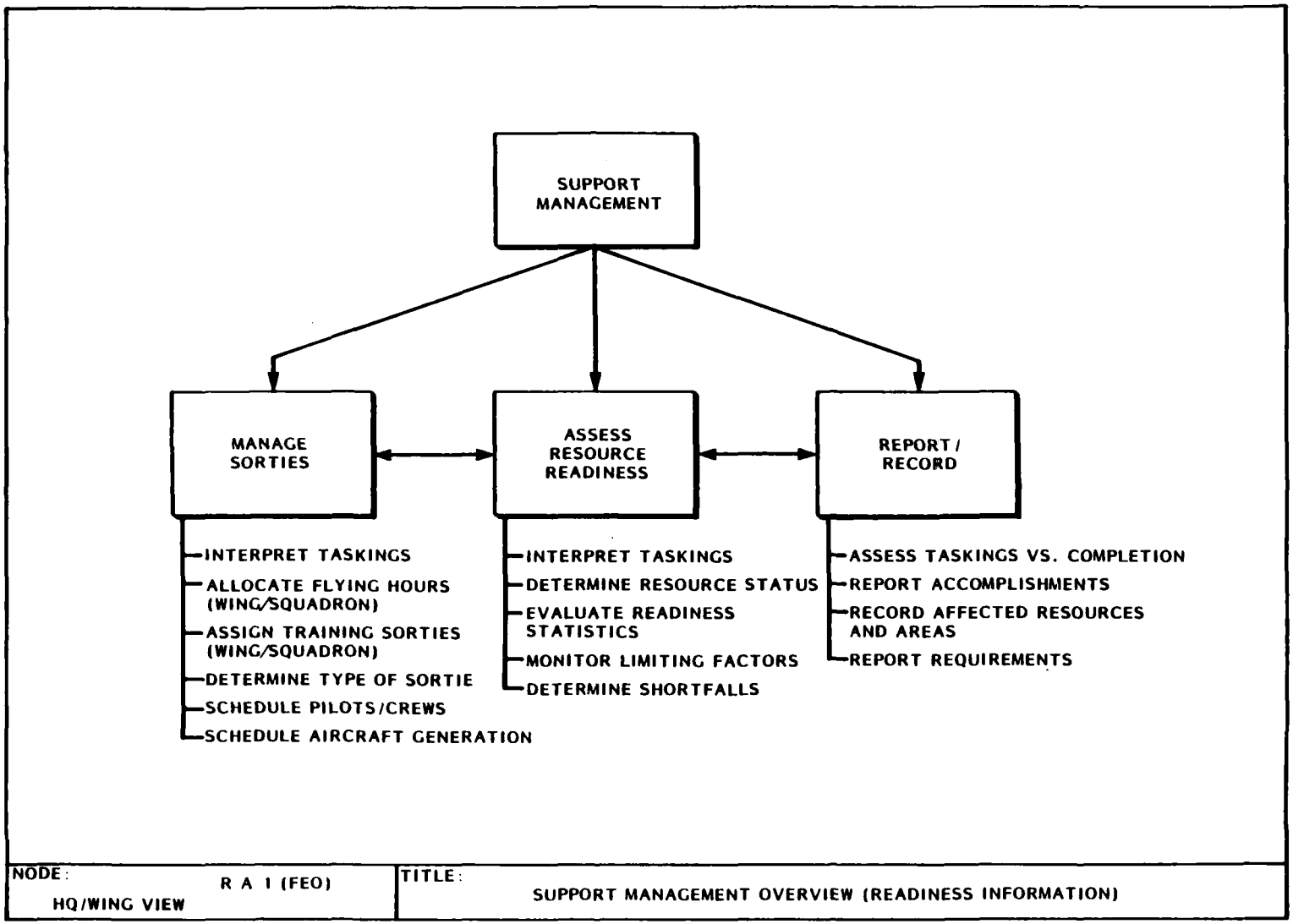
The overview of support activity and information gives context for readiness information requirements. Some of these functions are performed in Operations squadrons and Maintenance squadrons. Others are carried out by Wing and Major Command managers. What is common to all of these managers is the continuous objective of doing Air Force business, flying in some situation or condition, and doing that in such quantity and quality to be effective in combat. Commonly, "fly and fight" describes the tactical fighter purpose and mission.

Under Manage Sorties are the functions that convert flying hours and resources into tasked sorties and combat ready squadrons. The activity shown is of interest to Major Command as well as Wing/Squadron but is performed primarily at Wing and Squadron levels.

Assess Resource Readiness generates information from squadron to HQ USAF and to NATO. Report/Record is a continuous communication activity from squadron to HQ USAF. The focus in this description is on the Wing, as it is the source of this information. Major Command and HQ USAF receive some aggregation or summary of readiness information.

The Support Management function is key to readiness information requirements. The data collected daily, assessments made at squadron, and reports at all command levels support readiness decisions.

How much and how often this data is used becomes apparent under the Report/Record activity. The process that outlines the critical information reported is summarized into four daily or real time needs: 1) whether or not the job got done; 2) what did get done or completed; 3) what resources were used or changed; and 4) what is needed to keep operating, feedback to future planning in 1.



NODE:	TITLE:
R A 1 (FEO) HQ/WING VIEW	SUPPORT MANAGEMENT OVERVIEW (READINESS INFORMATION)

R A-1 Support Management, Process Overview (HQ USAFE and TFW View)

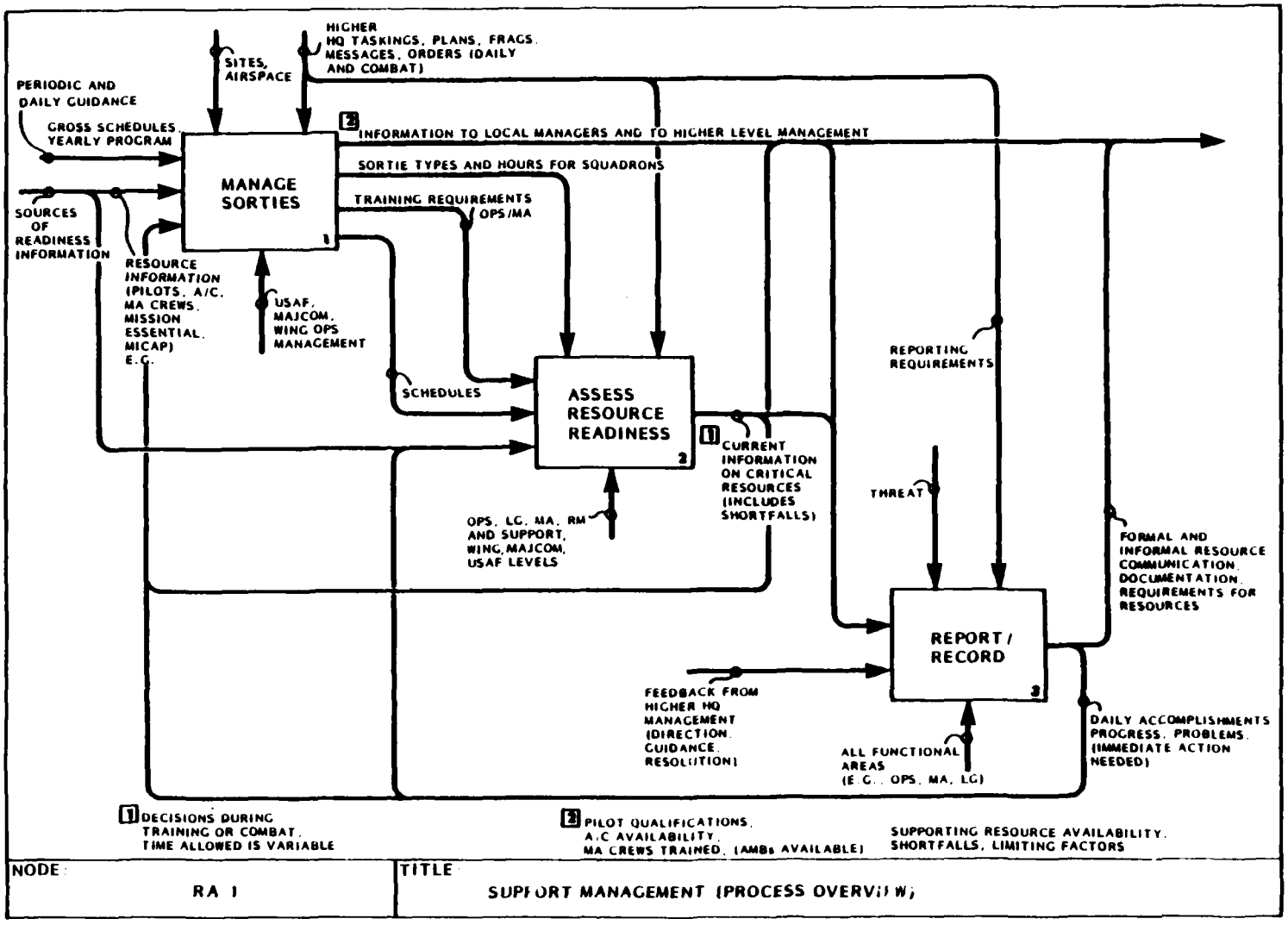
This diagram describes three major management activities, (Boxes 1, 2, and 3). They closely relate to one another because of the information they share and the feedback shown from Boxes 2 and 3 to Box 1. From a higher level of management, allocations and schedules are received (Box 1 input). In addition, resource information of some level of specificity is required at Box 1 from sources at the flightline, supply, maintenance shops, munitions, squadron buildings, and engineering areas. This status or profile of resources is also used at Box 2. This resource "health" information, as well as schedules to be completed and specific training requirements, is used to assess readiness. For example, requirements from Box 2, whether combat qualifications or training squares, are criteria for assessing pilots and aircrews. This would be expressed as the number of available pilots, their positions, and levels of proficiency. From this information and judgement, a squadron commander assigns crews to a mission. Also, shortfalls in training are determined.

When quick response is needed or combat taskings occur, (Boxes 1 and 2) sortie management and readiness assessment must be carried out at a much faster pace. Under these taskings, assessment of resources happens very rapidly, and real time data are needed to decide response. Notice the output from Box 1 to higher Headquarters, Note 2. In combat or intensive surge, this decision support information is needed at squadron level as well as at Major Command and theater levels.

A key factor in USAFE that controls sortie management is training site and airspace availability (Box 1). The decisions concerning what type of sorties and hours are allowed per squadron must take advantage of available space and sites. Specific information is required about resource status so that flying schedules and arrangements can be made for deployments or to use airspace optimally.

Adjunct to the actual management and assessment, are constant recording and reporting (Box 3). Some information is more formally prepared and relayed. Other daily real time information requires immediate attention to continue operation or to fly the next day's schedule.

The concept of tasking-based readiness is exemplified in this diagram, showing taskings, resource capability measured against the taskings, and readiness information conveyed to management personnel who make resource assessments and decisions. This concept supports managers at all command levels.


HIGHER HQ TASKINGS, PLANS, FRAGS, MESSAGES, ORDERS (DAILY AND COMBAT)
SITES, AIRSPACE
PERIODIC AND DAILY GUIDANCE
GROSS SCHEDULES, YEARLY PROGRAM
2 INFORMATION TO LOCAL MANAGERS AND TO HIGHER LEVEL MANAGEMENT
MANAGE SORTIES 1
SORTIE TYPES AND HOURS FOR SQUADRONS
TRAINING REQUIREMENTS (OPS/MA)
SOURCES OF READINESS INFORMATION
RESOURCE INFORMATION (PILOTS, A/C, MA CREWS, MISSION ESSENTIAL, MICAP) E.G.
USAF, MAJCOM, WING OPS MANAGEMENT
SCHEDULES
ASSESS RESOURCE READINESS 2
1 CURRENT INFORMATION ON CRITICAL RESOURCES (INCLUDES SHORTFALLS)
REPORTING REQUIREMENTS
THREAT
OPS, LG, MA, RM AND SUPPORT, WING, MAJCOM, USAF LEVELS
FORMAL AND INFORMAL RESOURCE COMMUNICATION, DOCUMENTATION, REQUIREMENTS FOR RESOURCES
REPORT / RECORD 3
FEEDBACK FROM HIGHER HQ MANAGEMENT (DIRECTION, GUIDANCE, RESOLUTION)
DAILY ACCOMPLISHMENTS PROGRESS, PROBLEMS, (IMMEDIATE ACTION NEEDED)
ALL FUNCTIONAL AREAS (E.G., OPS, MA, LG)
1 DECISIONS DURING TRAINING OR COMBAT, TIME ALLOWED IS VARIABLE
2 PILOT QUALIFICATIONS, A/C AVAILABILITY, MA CREWS TRAINED, (AMBs AVAILABLE)
SUPPORTING RESOURCE AVAILABILITY, SHORTFALLS, LIMITING FACTORS
NODE: RA 1
TITLE: SUPPORT MANAGEMENT (PROCESS OVERVIEW)

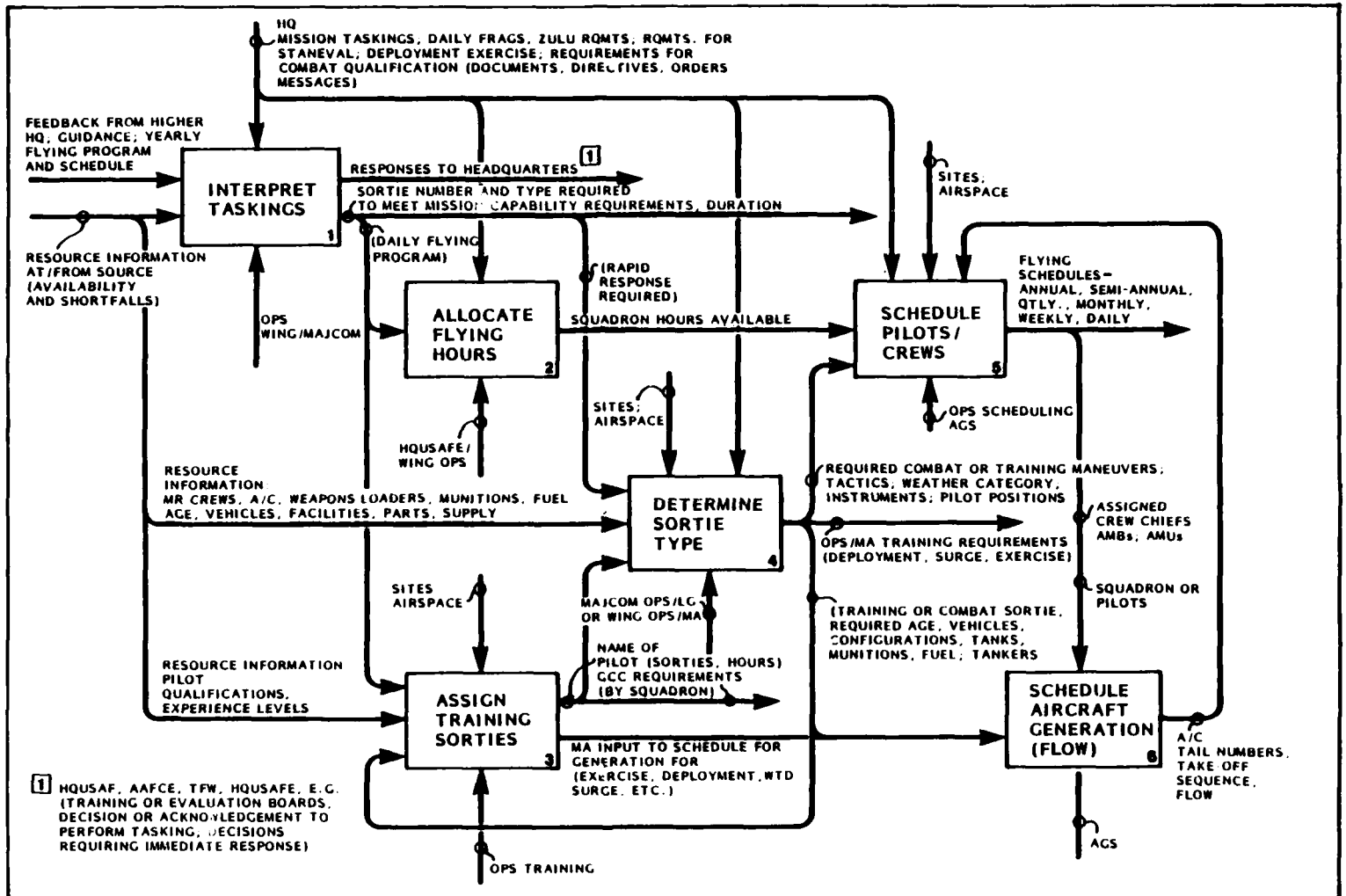
RS AO Manage Sorties (HQ USAFE and TFW View)

Manage Sorties is detailed in this diagram to show subactivity relationships and more specific information. The labels on the arrows entering and leaving the boxes specify what the activity receives and produces.

The flow of information starts with tasking (Box 1) which must be quantified as the daily flying schedule or the combat sortie type, number, and duration required. In combat, flying hour concerns at Boxes 2 and 3 are bypassed to Box 4 where the sortie configuration required for combat is specified. Maintenance and Operations then assign aircrews and crew chiefs (Box 5) and aircraft generation flow (Box 6). In a training situation with time to plan and make decisions, the flying program would enter Boxes 2 and 3 to yield hours assigned to squadrons and specific training sorties needed by each pilot. Daily, the type of sortie required in the schedule is determined and controlled by mission taskings, which also control Boxes 1, 2, and 5.

Very detailed information is needed to draw up the daily flying schedule requirements at the squadrons (Box 5). Schedule and squadron sortie requirements control Box 6. The generation schedule (Box 6) is determined by the sortie configuration, equipment, and vehicles needed to prepare the aircraft. From Box 6 result specific tail numbers that are operational and will be generated to meet the flying requirements. This availability controls the ability of the aircrew and maintenance crews to meet the planned schedule. In combat, Box 6 activity quickens such that a flow sequence is established to configure and upload as quickly as possible. A pattern of generating, flying, recovering, and turning requires skill and immediate decisions. The relationships among Boxes 4, 5, and 6 are very tightly linked through their shared control on one another, especially Boxes 5 and 6.

Managing sorties to get the most benefit from good weather, allocated hours, and available air space is a complex system involving Wing and squadron management. Spreading out sorties and balancing flying time and quality to get maximum proficiency require many decisions and continuous resource information. Locally, the daily or immediate availability of a resource must be known. In addition, requirements and schedules must be coordinated with higher Headquarters. Most of this information, except in combat, will flow between squadron and Wing, and, between Wing and Major Command.



NODE:	TITLE:
RS A0	MANAGE SORTIES

RR AO Assess Resource Readiness (HQ USAFE and TFW View)

Box 1, the tasking interpretation process, is critical to assessing realistic unit capability, that is, quantification of sortie potential per aircraft expressed as sortie capability for a period of time, and, as specified structured resources needed and available to generate and sustain sorties. Managers, who must determine resource status daily, are guided by what the taskings are, either grossly or as specific orders (Box 2). When specified aircraft, support items, sorties, and current mission elements are measured against the actual resources present and available, a very precise assessment can result.

Two kinds of status information are used (Box 2). Immediate status reports require the raw situation in sortie type and number that can be flown or generated. Combat situations do not allow a thorough analysis of all resources. Time constraints require that tactical decisions be made immediately and depend on the most recent report of how the mission stands or how many aircraft are mission capable, damaged, malfunctioning, not flyable, or non-serviceable. The second kind of status information is monitored daily. Mission essential resources, critical to launch, must be tracked constantly for basic information giving quantity, condition, and location information.

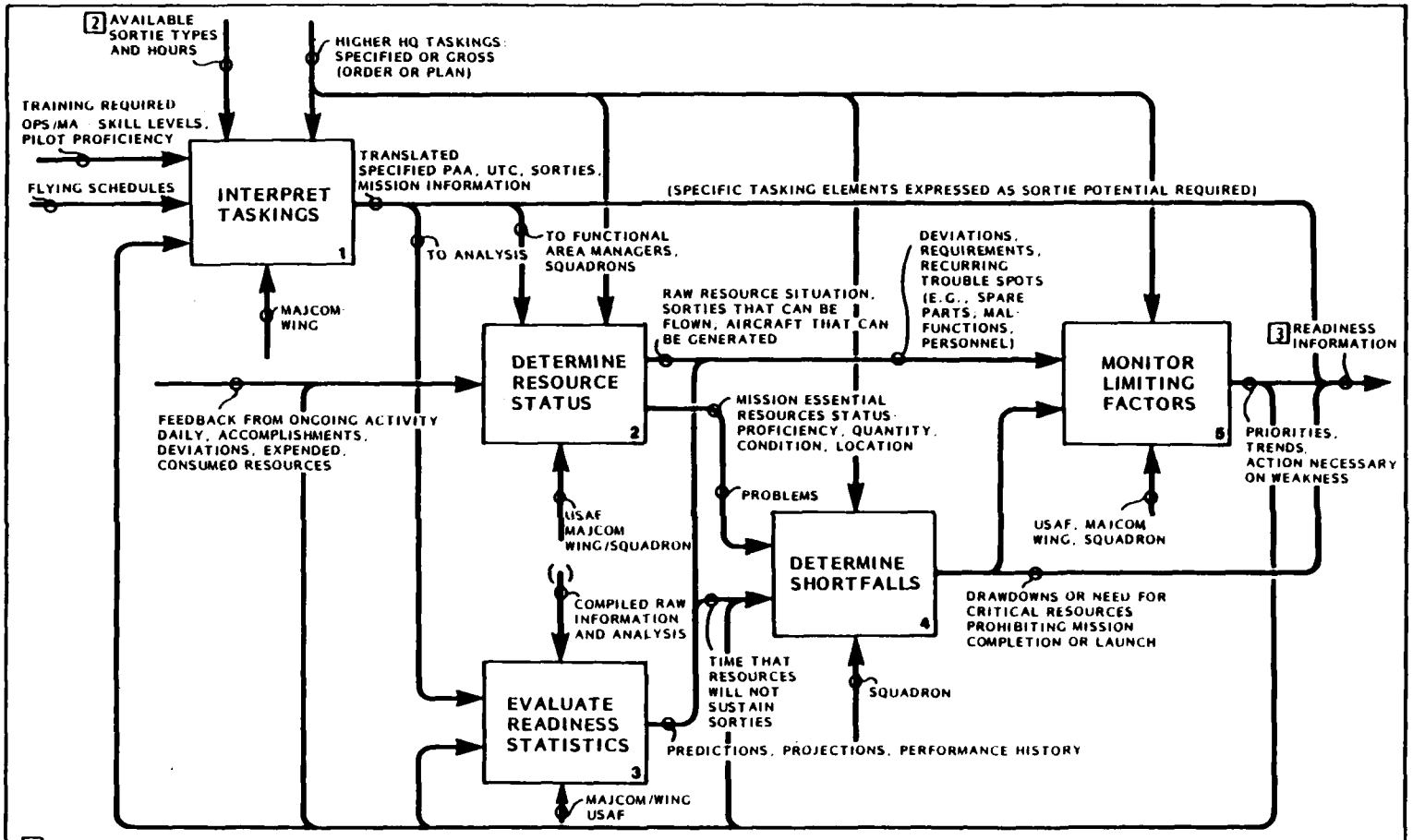
When one of the critical resources is below mission capability and the standards required, a "by exception" notification is required to all managers that the mission is prohibited from completion and that sortie launch will not occur (Box 4). Box 4 warnings can go to monitor (Box 5) or straight out to higher Headquarters for immediate guidance or resolution. Shortfalls are recorded as potential problem areas, resulting in trends and records of actions to resolve the shortfall.

Monitoring products are fed back to Boxes 3, 2, and 1. Box 2 also receives immediate feedback from real time activity and can yield information directly to Box 5. Box 5 feedback to Box 3, with specific tasking information, allows predictions and projections about sustaining sorties to be made. This output also goes to Monitor at Box 5 so that actions and priorities can be decided. Raw data from previous events, such as conflicts, exercises, and training deployments and maneuvers, control the evaluation made from statistical data.

Readiness data is filed for determining readiness trends, given previous specified taskings and response.

There are inevitable feedbacks not pictured here, as all of these management functions are continuously active, whether in peacetime or combat.

Readiness information must be available for autonomous management situations, vital to surviving and sustaining in USAFE. The information is needed as long as there is capability to fly one aircraft. One flyable aircraft and its short turn requirements form the basis for readiness measurement information. Additional information is supportive or a mulitple of that basic structure of resources.



1 NOTE
DEPENDING ON TASKING, THE PROCESS OF ASSESSING RESOURCES CAN BE COMPRESSED OR EXPANDED. THE INFORMATION MAY BE GROSS OR SPECIFIC

2 ASSUMING CONSTRAINTS, THE GREATEST NUMBER AND BEST QUALITY OF SORTIE MATCHED TO THE ALLOWED FLYING HOURS (A TRAINING/SCHEDULING DECISION)

3 INFORMATION ABOUT THE CURRENT CAPABILITY OF THE RESOURCES OF A SQUADRON TO PERFORM THE IMMEDIATE TASKING OF THE DAY OR HOUR. (EXPRESSED IN SORTIES OR IN RESOURCES)

NODE: RR A0	TITLE: ASSESS RESOURCE READINESS

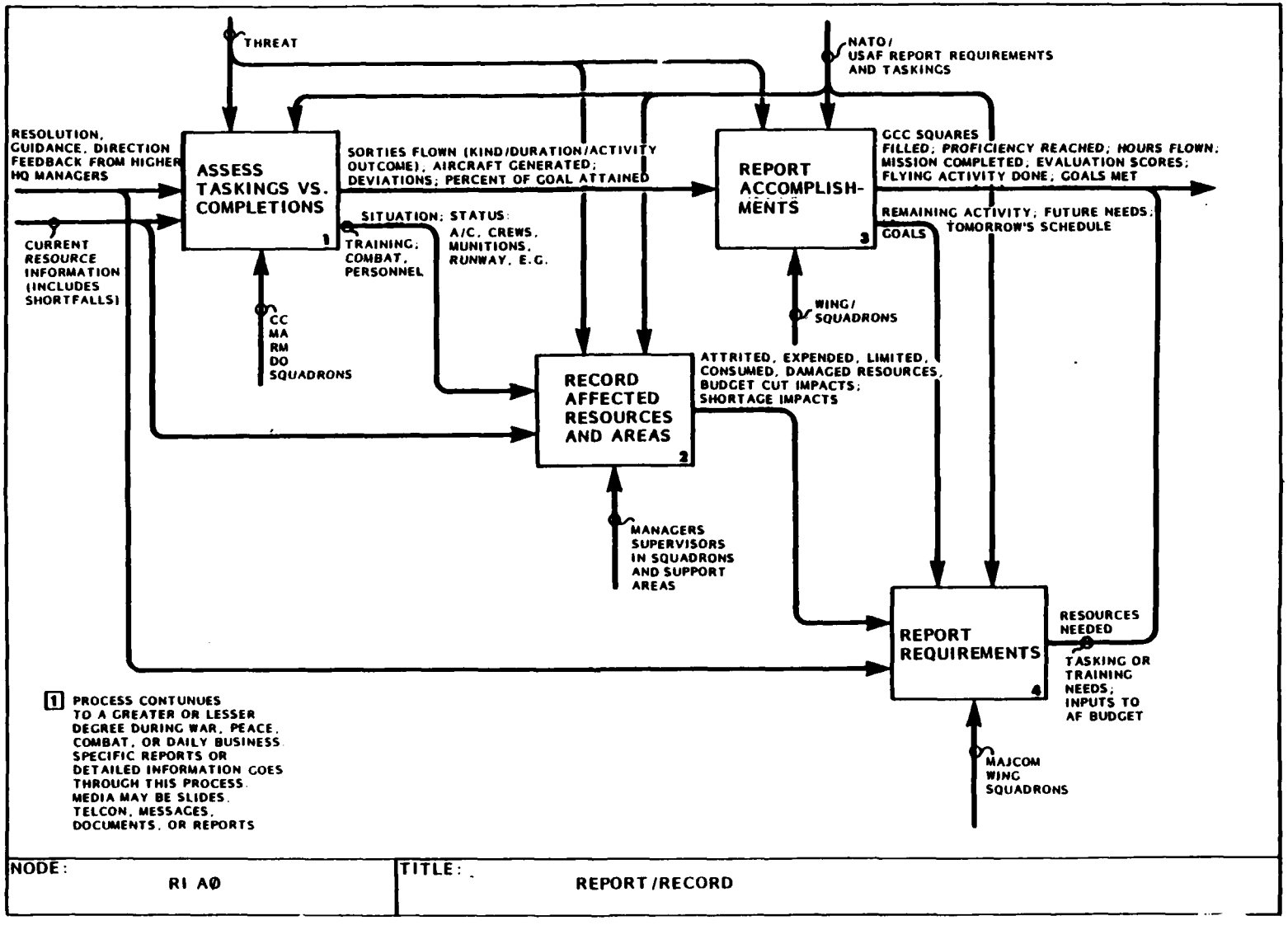
RI AO Report/Record (Information Flow) (HQ USAFE and TFW View)

The Report/Record function is continual. The work done at both Wing and Major Command must be documented and communicated to local personnel and managers at all command levels.

Box 1 provides status information, such as briefings or daily standups, necessary to manage a Wing or a squadron locally. Box 3 provides a refined set of information, such as a documented longer term report covering a set of resources. This would be information needed by Major Command and HQ USAF managers to evaluate future squadron needs and to prepare budget and resource requirements. At Wing level, some of this information would be sent to Major Command, reporting activity to be completed or the next day's or week's schedule.

The main purpose of this information is to determine resource profiles and to convey resource disposition. Box 2 takes raw situation or status data and formalizes it into accounts of those areas where limited resources, drawdowns, and shortages are occurring. The results of this accounting procedure are reported (Box 4) as requirements for new resources. These resource needs can be expressed as overtaskings, training deficiencies, or dollars required. The process (Box 4) converts data on affected resources (Box 2) to an expression of need to meet current taskings.

The report/record function documents gross readiness data. The details at the source or event that create the data are not included. This diagram is structured functionally rather than organizationally because all organizations and areas report and record to someone, or receive reports from someone. Notice that to perform Box 1 or Box 4 requires feedback from other managers or areas, as a result of the reports generated by Boxes 3 and 4.


THREAT
NATO/
USAF REPORT REQUIREMENTS
AND TASKINGS
RESOLUTION,
GUIDANCE, DIRECTION
FEEDBACK FROM HIGHER
HQ MANAGERS
ASSESS
TASKINGS VS.
COMPLETIONS
1
SORTIES FLOWN (KIND/DURATION/ACTIVITY
OUTCOME), AIRCRAFT GENERATED;
DEVIATIONS; PERCENT OF GOAL ATTAINED
REPORT
ACCOMPLISH-
MENTS
3
GCC SQUARES
FILLED; PROFICIENCY REACHED; HOURS FLOWN;
MISSION COMPLETED; EVALUATION SCORES;
FLYING ACTIVITY DONE; GOALS MET
SITUATION; STATUS:
TRAINING;
COMBAT,
PERSONNEL
A/C, CREWS,
MUNITIONS,
RUNWAY, E.G.
REMAINING ACTIVITY; FUTURE NEEDS;
GOALS
TOMORROW'S SCHEDULE
CURRENT
RESOURCE
INFORMATION
(INCLUDES
SHORTFALLS)
CC
MA
RM
DO
SQUADRONS
WING/
SQUADRONS
RECORD
AFFECTED
RESOURCES
AND AREAS
2
ATTRITED, EXPENDED, LIMITED,
CONSUMED, DAMAGED RESOURCES,
BUDGET CUT IMPACTS;
SHORTAGE IMPACTS
MANAGERS
SUPERVISORS
IN SQUADRONS
AND SUPPORT
AREAS
REPORT
REQUIREMENTS
4
RESOURCES
NEEDED
TASKING OR
TRAINING
NEEDS;
INPUTS TO
AF BUDGET
MAJCOM
WING
SQUADRONS
1 PROCESS CONTUNUES
TO A GREATER OR LESSER
DEGREE DURING WAR, PEACE,
COMBAT, OR DAILY BUSINESS.
SPECIFIC REPORTS OR
DETAILED INFORMATION GOES
THROUGH THIS PROCESS.
MEDIA MAY BE SLIDES,
TELCON, MESSAGES,
DOCUMENTS, OR REPORTS
NODE:
RI A0
TITLE:
REPORT/RECORD

END

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